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ORIGINAL ARTICLES

THE ABUSE OF MEDICAL CHARITIES IN CHICAGO.*

CHARLES J. WHALEN, M.D., LL.B.
CHICAGO.

Gentlemen, we are responsible for the abuse of medical charity as it exists in Chicago at the present time. Fortunately we are by our mode of life peculiarly fitted to consider it, assembled, as we are, in consultation on a case vitally concerning the future of medicine in this city. It is not necessary for me to ask you to approach it with that earnestness, that calmness and respect for one another's opinion which men of our profession can command when a patient is in question. What we desire for medical charities is to put it in its true position.

The object of this paper is to call attention to the following facts: 1. The enormous amount of gratuitous work now being done by the physicians of this city every year. 2. The acknowledged ability of a very large proportion of so-called charity patients to pay for services rendered. 3. The injustice of requiring physicians to treat well-to-do people in our public and private hospitals for nothing.

The conditions under which medical charities have heretofore been administered can only be characterized as a condition of anarchy, without supervision, order or system. For many years the subject for medical charities and especially dispensary charity has engaged the attention of some of the brightest minds in the profession. It has been estimated that probably half the population of New York and Chicago receive free medical and surgical treatment.

The medical profession the world over, by a studied indifference to the commercial side of its existence, has placed a large number of very embarrassing obstacles in its road to prosperity and success. In our rantings against commercialism which are usually devoid of common sense, we have nearly lost sight of the true meaning of the word. We

* Read before the October Meeting of the North Shore Branch of the Chicago Medical Society.

have so far forgotten the simple, common-sense principles of every-day business affairs, which make it possible to live at all, that every manner and kind of associations can make tools of many of us at any time they wish for any sum they wish to pay.

It is said that the abuse of charity has worked more mischief and brought more misery in its wake than have pestilence and famine. The first stimulus to labor is hunger. What need to work when the necessaries of life may be had for the asking? Why be careful to observe the laws of health when advice and medicines are free? The beneficiary of charity will grow shiftless and lazy. Thoughtless charity has made the tramp and nurtures the discontent of the anarchist. It makes possible the professional beggars, against whom we are warned from time to time by organized charity associations. Indiscriminate medical charity must bear the responsibility of a large part of the degradation and dissatisfaction of mankind. "A man who would scorn to take other things without pay lies to the doctor for free advice." Thus we see that the dispensary gives the first lesson in indigence and degradation.

Ever since the world began we are told that man has been seeking to obtain something for nothing, a corrupting desire, pauperizing and degrading in its effect. The first thing a man or woman will accept as charity is medical attendance. The first step to pauperism taken, the second is easy. A man begins by taking what he should not receive, begs what he does not deserve, demands as a right that to which he is not entitled, not only free medical service, but free food, free lodging, free clothing and fuel.

It is shameful that hospital and free dispensaries which are such worthy charities in theory have become dangerous menaces to society in general, owing to the fact that they are demoralizing, pauperizing the shiftless and lazy by encouraging begging and dependence on charity to such an extent. Persons who can well afford to pay for their treatment and medicine have become so hardened and brazen that they will stand in line for hours awaiting their turn that they may receive even their medicine for nothing. Formerly it was a sign of poverty, or at least something of a reflection upon a person's financial standing, for him to go to a dispensary or public hospital. Modern methods, however, have changed all that and have encouraged people to flock to hospitals and dispensaries, both public and private, as never before. The community has come to feel that anybody and everybody are at liberty to avail themselves of the benefits of these charitable institutions.

Three classes of patients patronize charities: 1. Those able but not willing to pay. 2. Those who, not knowing a specialist, want to find one without being compelled to pay a specialist's fee. 3. The poor, suffering unfortunates who, because of poverty, are forced to avail themselves of a medical charity. A large factor in the use and abuse of dispensaries is that the public has found out, or thinks it has, that they are the best as well as the cheapest places in which to obtain the services of the leading physicians and surgeons.

Another cause for medical charity has been the demand by the medical schools for free clinical material. It is to the interest of those connected with the institution to have, if possible, a large service. It means wider experience, it lends prestige and opportunities to do operations, thereby increasing the skill of the operator. Should the department be surgical in character, increased reputation as a surgeon, and consequently a larger clientele, the same will hold good in other departments of a hospital dispensary.

It is a noteworthy fact that the hospital or dispensary doctor usually gets practice more quickly than one who has no connection with an institution. Therefore, many physicians, the sooner to acquire a reputation, organize a hospital or dispensary, and, of course, the public takes advantage of these, as the public always will where it can get something for nothing or as little as possible. Churches, too, in order to increase their temporal power and at the same time find an outlet for their charitable impulses, have been prolific in organizing dispensaries. With the multiplication of these medical charities the effect upon the profession began to make itself felt until it has reached its present gigantic proportions. I have seen at dispensary clinics patients wearing diamonds, gold rings and other jewelry. They occasionally come in carriages, clothed in fine raiment, decked with jewelry.

In the various departments of dispensaries I have repeatedly seen policemen, firemen, letter carriers and other men earning easily $80 a month and upwards. Again, there is often seen at the dispensary the rich, decked in poor clothing, the lawyer and broker with incomes running into thousands per year. I recall a certain patient who applied for treatment at a dispensary and was, he said, unable to pay anything for treatment, yet he owned nearly $75,000 in unincumbered real estate. With some it actually becomes a matter of pride. One of my own patients who is quite wealthy confessed to me that she dressed up in old shabby clothing to go to a dispensary.

It has been estimated that fully 50 per cent. of charity patients are persons whose financial position puts them wholly beyond the scope of charity, and that an extremely small per cent. represent extreme poverty. This means that fully 50 per cent. of the funds provided for charity of the poor to whom it rightfully belongs is diverted by the rich. These wealthy paupers are nothing less than criminals, guilty of obtaining under false pretenses that which does not belong to them. They cheat both ways, the poor to whom belong treatments and the physician who is worthy of his hire.

The desire to get something for nothing is not entirely responsible for the dispensary abuse. It seems to me that practitioners are somewhat to blame. There is a certain class of physicians who, either from incompetency, laziness or because the fee is not sufficient, send cases of simple surgical operations to the dispensary; operations that they should be able to perform easily, and in this manner create the hospital habit in the patient. Many of these physicians furnish the after-treatment in their offices and pocket the fees. Again, there are physicians who have

the habit of bringing patients quite able to pay to the dispensary physician for free consultation. It is often hard to refuse for the sake of old acquaintance, perhaps, but, on the other hand, it robs the specialist of a fee and helps to swell the ranks of the dispensary patients. The patient, however, having found the dispensary a good place to go, will in many instances, when he needs further medical aid, avail himself of the privilege, only this time without consulting his short-sighted physician.

In order to further emphasize the extent of the dispensary abuse in this city, I take advantage of this opportunity to present to you the report of the Committee on Abuse of Medical Charities of the Chicago Medical Society. A summary of their report follows: There are in Chicago 55 dispensaries, 16 of which are connected with hospitals, 9 with medical colleges, while 30 have no connection with any such institution. Of these 55 dispensaries, 27 are used for clinical instruction, 7 are privately owned; in 6 medicine and treatment are furnished free; in 18 a charge is made to cover the cost of medicine, and in 23 as much money is collected from the applicant as can be obtained. The smallest fee recorded is 5 cents and the largest $10, which latter amount is charged by maternity dispensaries. Only 5 dispensaries exhibit signs announcing that treatment is limited to the sick poor; 26 dispensaries claim to investigate the ability of the applicant to pay.

Investigation by the committee shows that in 51 of the 55 dispensaries the only investigation instituted consists of a few questions put by the physician in charge, the object of which the applicant at once discovers and answers accordingly. One dispensary refers the cases of doubtful applicants to the Chicago Bureau of Charities for investigation; 3 employ a clerk to look up suspicious cases. During the last year 29 dispensaries treated 223,110 persons; in 26 which were run in a slipshod manner no records are kept of the number of patients treated; 16 dispensaries report the number of times each person returns for treatment. During the last year these 16 dispensaries treated 93,806 persons and treatment was 246,140 times. The number of applicants refused treatment on account of their ability to pay outside physicians was 1,170. In many cases, on investigation, the applicants for relief were found to be property owners, well-to-do citizens or persons drawing comfortable salaries.

It will be seen from this report that 29 institutions treated 223,110 persons; that 26 dispensaries kept no record of the number of applicants treated, but the committee, after careful deliberation, taking into consideration the size, object and location of these institutions, estimated the number of people in the city receiving free treatment at 500,000, or 25 per cent. of the population. Sixteen institutions kept a record of the number of persons treated and the number of treatments given each patient. These 16 institutions treated 93,806 persons and gave 246,140 treatments, an average of 2 2/3 treatments for each person.

Under normal conditions the average per cent. of the population dependent on and receiving charities other than medical is ½ to 1 per cent. Let us say 10,000 and add 20,000 more to account for a reduplica-

tion, which would make 30,000. Deduct this from 500,000 and we have a remainder of 470,000, which shows the number receiving medical charity who are not compelled to ask for, or who do not receive, charity in other forms. This is an approximate estimate of the extent of medical charity abuse in the dispensaries.

Each of these patients received an average of 2 2/3 treatments, or 1,153,332 treatments for 470,000. Most of these treatments consist of something beyond the ordinary consultation, many resulting in expensive operations. We will estimate the average fee for the same service rendered in private practice at $2 each, or $2,306,664. Most of this burden is borne by the general practitioner. This $2,306,664 represents the financial injury done the medical profession by this abuse in the dispensaries, but the moral injury done the beneficiaries of this misguided benevolence is past comprehension.

The accuracy of the matter contained in this report is vouched for by the Bureau of Charities and the committee. The above enumeration makes no account of the considerable amount of charitable work done by every physician in his private practice, which, estimated in dollars and cents, amounts to a large sum annually. In order to get an idea of the amount of charity work done by the profession in their private practice, I asked the opinion of a number of our representative practitioners. Their replies showed a variance between $375 and $1,000, the majority believing $500 to be a fair average at minimum charges for operations, home and office treatments for each physician. In order that there can be no question of the conservativeness of this statement, I will place the average at $400 for each practitioner. There being upwards of 3,000 in Chicago, this represents a total in excess of $1,200,000 for this form of medical charity.

All that has just been said about dispensary abuse of medical charity might with equal, if not more, earnestness be applied to hospital abuse of medical charity, because their patrons are as a class of a considerably higher grade financially. The Committee on Contract Practice of the Chicago Medical Society for the years 1907 and 1908 submitted a report, which, summarized, is as follows:

Over 25 per cent. of the hospitals of the city, and among this number most of the larger institutions, are engaged in contract work of a more or less objectionable character. The phase that almost every one is familiar with is, that assignment cases are treated *gratis* by the attending staff, and that persons who are able to pay avail themselves of this practice to obtain medical attendance for nothing. And not only is this true of individual patients, but railroads, industrial corporations, societies and lodges get these same privileges on a large scale, and even in the cases where the employés or members pay into a fund for the assurance of medical and surgical care. The hospital generally receives full pay; the staff, however, gets nothing. This arrangement is neither equitable to the staff nor to the profession at large.

Few physicians have any adequate idea of the enormous amount of gratuitous work done in this city every year by our profession in treat-

ing hospital patients who are able to pay for the medical attention, but who under our present system are not required to do so. Will you allow me to present a few details on the subject taken principally from hospital reports and, therefore, assumed to be reasonably correct? There are 73 hospitals in this city for the care of the injured and ailing. Some of them are private and do no charity work other than accepting the gratuitous service of the physician; others furnish both free and paid service, while the remainder are devoted entirely to the care of the poor. The records show that upwards of 100,000 persons were treated in hospitals in Chicago last year (1907), and that of this number upwards of 60,000 were ward or charity patients, all of whom received free medical and surgical treatments, and the physicians received no remuneration whatever. Deducting ½ to 1 per cent., as it has been officially shown is the percentage of the population accepting charity other than medical, we have practically 60,000 people receiving free medical treatment in hospitals each year who are not entitled to it.

Allowing that 50 per cent., or 30,000, were surgical and 30,000 medical, and allowing, too, that a large percentage of the surgical operations were capital operations, such as laparotomies, amputations, dislocations, fractures, trephining, etc., and that a conservative average fee for the surgical work would not be less than $50 for each case and $25 each for the medical attendance, we have $1,500,000 for the surgical and $750,000 for the medical attendance, a total of $2,250,000 per year given by the profession gratuitously to hospital patients alone.

We are asked to perform this enormous amount of labor for nothing, that is, for direct compensation in the way of fees and salaries, aside from the satisfaction of relieving pain and saving life. While these are valuable considerations, I submit they do not justify unlimited neglect or defiance of the ordinary economic laws that obtain in all other occupations. I believe that the laborer is worthy of his hire, even though he be a physician. I believe that a doctor should receive a reasonable compensation for taking care of those able to pay for his services, wherever they may be rendered. I believe that the principle of treating free the medium and well-to-do people is wrong, and that the practice is worse, and that all patients in private rooms and private ward beds should be expected to pay the surgeons or physician's fee.

Why should not the attending physicians and surgeons be paid a fee for their attendance upon these patients, where no one can deny for a moment that the professional services are by far the most important and valuable asset these patients receive from the hospital, and yet they pay absolutely nothing for it? In fact, the professional services is their principal object in going to a hospital. If these patients are able and willing to pay their doctor for his services, as doubtless many of them are, what good reason can be given for their not doing so? The injustice of the custom is well illustrated in one of my own cases. Some years ago one of my patients, a civil engineer in excellent circumstances, had made arrangements with me to go to a hospital, take a private room and have an operation performed, the fee of which was to be $200. Some

weeks later I learned through a mutual friend that the patient had gone to St. Joseph's Hospital, had taken a ward bed and been operated on by the late Dr. Senn, paying nothing for the operation. His total hospital expense was less than $25. I have had a similar experience a great number of times during my career as a practitioner. It goes to show that the public understand the matter and are not slow to take advantage of it. I do not believe there is a physician within hearing of my voice who has not had similar experiences. Practice of this sort makes the hospital a rival with the outside physicians and a means of depriving them of their patients. Needless to say the outside physician loses a patient for all time through the medium of a semi-charitable institution. The man so wronged looks upon this institution as his professional enemy; its standing in the eyes of the medical fraternity is injured, and if this occurs often the institution may really become a source of discord and professional ill-will. The staff members helping in this transfer method do not receive an unalloyed blessing.

As a rule, sending patients to such institutions is tantamount to losing their patronage, for nine cases out of ten if the physician who refers the patient is not a member of the hospital staff and often if he is his connection with the case ceases when it enters the institution. Therefore, hospitals at the present time are not fulfilling their most complete function to the profession, the reason being enactments of rules which confer special advantages on a few medical men and rigorously deny any privileges to those outside the charmed circle.

At present where one finds a hospital there also one will find a small clique of medical men enjoying special advantages and privileges by virtue of their hospital connection. Their less fortunate colleagues being denied these advantages are thus proportionately handicapped in the practice of their profession.

Usually a hospital staff is comprised of honorable and capable men who would scorn to purloin their colleagues' patients, but there are psychological factors involved in the treatment of a patient in a hospital by a physician or surgeon enjoying the prestige of official appointment, and any patient who passes successfully through the ordeal of a surgical operation or serious illness is pretty apt to focus his gratitude, regard and confidence on the medical man who attended him. This is natural and involves no wrong, but when the attending physician or surgeon is an active competitor of the colleague who sent the patient to the hospital, to have the patient forsake the old for the new, not only creates a difficult ethical situation, but works a hardship upon the original physician. Had the latter had the same opportunity, in all probability he would have equally proven his skill and worthiness.

Such a system, therefore, tends to elevate the few at the expense of the many, whereas the ideal professional situation in any locality is a community of interest, with "equal rights for all and special privileges to none." The practice of medicine is not a soulless scramble for wealth and power, but a vocation for earnest men who must constantly and un-

flaggingly seek the highest possible efficiency in order to do the greatest possible good.

The hospital system that sooner or later must be adopted is that which offers to every medical man the opportunity of placing his patients in any hospital he or they may elect, there to treat them with all the freedom that is his as a legally qualified practitioner of medicine. Giving equal hospital privileges to every physician and surgeon can not fail to work for the general elevation of all. Hospitals will then become in reality what they were originally intended to be, institutions solely for the use and welfare of the public, and not institutions for the promotion of private gain, professional or otherwise, as under present conditions is too often the case.

Lodge practice is a branch of contract practice which furnishes medical attendance to members through an organization. Such organizations often procure and supply medical service to its members, in some instances to the whole family of which the head is a member, at such ridiculously low fees that the cheap medical service itself becomes a drawing card or an inducement for men to join these organizations. Many of them are at the same time beneficial organizations, paying weekly sick benefits to its members.

You who are conversant with conditions in the old world are aware of the fact that this so-called club or lodge practice has assumed proportions where it is a veritable curse to the profession; that royalty itself pays its paltry club fee for no other purpose than to receive free medical treatment. In Germany we find this form of practice assuming enormous proportions. We have been told, for instance, that the profession in many parts of the Austrian, German and British empires had, during late years, suffered severely from this evil. To such extremes had it grown in some of these countries that it became necessary to organize an entirely new feature in the profession, a league that in German-speaking parts of the Continent took the name of the *"Leipsiger Verband."* This league was pushed vigorously and its methods were so perfect as to enable it to stem the tide wherever found flowing too swiftly.

In England mill operatives, otherwise such sticklers for labor unions, good pay, short hours, and many holidays, had thoroughly demoralized our profession in many of their manufacturing centers. It became necessary for the physicians to organize in sheer defense of their means of existence. In that peculiarly quiet, stolid way they went ahead, and with bull-dog tenacity successfully met the issue. The fees paid by these fraternal organizations average about $1 per annum, which entitles them and the members of their families to free treatment, the latter not to include primary venereal diseases and cases of obstetrics.

Many of these members belong to labor unions, and by organized efforts exact every dollar of their employer they can, and again by having membership in some fraternal organization try to evade payment of a reasonable fee for medical services. Individuals who by organized effort are willing to exact again by virtue of having membership in some fraternal clubs are anxious to evade a payment of an honest debt, show

by their conduct and inconsistent life that they are willing to receive what they are not willing to give.

The conditions to-day, as they appear to me, are as follows: On one side is a body of professional men wanting a just and equitable compensation for services which long study and self-sacrificing work fit it to render. Opposed to this we find groups of selfish men organized into bodies having such grandiloquent titles as "courts," "circles," etc., and planned to obtain our services for such inadequate compensation that the very offering of it is an insult to us. Only too often are these services in this fashion obtained by actually well-to-do individuals. Think, if you can, of a medical man accepting 2 cents per capita per week, a sum insufficient to pay for the "shine" on one of his shoes.

These organizations are cooperative. If one man does not work and have the proper pay, the others will not, either. I approve of this, so far as it goes; but every one is making an effort to rob the poor doctor of the honest income he so much needs. I am not objecting to cooperative plan to pay the doctor's fees, provided they are the regular fees. When, however, you are having the work done for the sum of 2 or 3 cents apiece a week, to make the organization cooperative, they should make an offer to the butcher, the undertaker, the blacksmith, who are just as worthy to have the support of the organization as has the poor doctor.

The effect of the nominal fees paid for lodge practice is apt to create the impression that those outside the lodge are paying too much for medical service, when, in truth, to obtain a medical education and maintain an honorable position in the profession requires more money, more time and labor than in times past. The intelligent study and treatment of disease requires a physician to be much better equipped by way of laboratory apparatus, instruments of precision and very many things now needed to practice medicine intelligently. The support of a family and necessaries of life cost more every passing year; hence, fees must be increased and not decreased.

The present wages of the laborer and the mechanic, the salaries of those in office, the gigantic incomes of the manufacturer and merchant and the general prosperity of the country at large are unprecedented, and yet the fees of the average practitioner have not advanced an iota in many localities in the last twenty years. Good fees means good physicians and to pauperize the profession means to reinstate the unlearned and incompetent. The physicians usually engaged in large practice may be divided in two classes. To the first group belong young men just starting out and who accept such positions simply as a tide-over and then resign after being able to get along fairly well. To the second belong men of all ages who have failed to establish a well-paying practice.

It often happens that the young graduate starts out with such financial resources that he can not afford to wait until he establishes a private practice. He very early learns that there are in this section hundreds of lodges and sick benevolent societies employing physicians on contract practice, each of which insures an income for the physician of from $25

to $100 quarterly. It is, therefore, natural that a young physician should, under the circumstances, make an effort to obtain such employment. This is more especially so when he finds that physicians with from ten to twenty years of practice are seeking the same position. It often happens that at the lodge elections we find old physicians competing against one another as well as against younger men, as they are all anxious to be elected usually each in turn will make some concession to the lodge or society to gain votes.

The question is, Is this kind of contract practice just and right or is it unjust and wrong? Some physicians engaged in lodge practice admit it is wrong, but try to excuse themselves by saying that if they will not do it others will, but two wrongs do not make one right, and hence this is no excuse at all; they admit it is wrong and manifest a willingness to do the wrong as well as the other fellow. What is right for one physician to do is right for all to do. Imagine all physicians engaging in lodge practice.

There is another and most important phase of the subject. That is when engaged in lodge practice you have to sacrifice your natural pride and personal feeling every day of your life to the selfishness and caprice of the people, for your patients will make a footstool of you and use you as a messenger boy just simply because they know you will not cost them extra.

These lodge physicians are not practicing among a clientele who come to them out of choice, but because they are cheap. I fail to see how any physician with any sense of dignity can for a paltry sum and under the cloak of some fraternal organization enter any threshold where he is not the physician of choice. The results of this condition of affairs are that the physicians become disrespected, the tone of the profession is lowered, the remuneration for medical services become ridiculously small, physicians are compelled to accept impossible conditions, and they are forced to care for a large number of families whom they can not properly attend.

Are you aware of the proportions to which this evil has grown in this country? You may when I tell you that in one particular organization there are practically 250,000 members; about 50 per cent. of this number are men who have families, and, as each family averages about five to each household, you can make your own estimate as to the number who receive medical aid for the small sum of $2 per year, which is the paltry amount stipulated in the by-laws of these orders.

According to the best information available at the present time, there are operating in the city of Chicago about a dozen organizations doing contract practice of a more or less objectionable nature. The membership of which could be conservatively estimated at one person in every 40 of this city's inhabitants, or a total of 50,000 people, and representing a money loss to the profession of about $500,000 each year, which sum includes the treatment rendered the families of the members.

All that has been said relative to lodge practice might with equal force be said of contract practice *per se*. The only difference is that in

contract practice proper we are dealing with corporations instead of lodges or societies. Many of our large firms and corporations have contracts with hospitals, the latter agreeing to render free medical and surgical service to injured employés, the corporations merely paying for the bed by the year, thus securing unlimited service for a purely nominal amount. One large manufacturing establishment in this city has connected with it a dispensary and some fifty beds.

Another method adopted by corporations is to place professional services on the block and knock it down to the lowest bidder. Physicians living in localities where this practice flourishes know how greatly it harms the public as well as the profession; it places the practice of medicine on purely a commercial basis; it prevents the physician from obtaining proper remuneration for his services; it places a blight on medical progress; worst of all, it reduces the profession to that of a poorly paid promoter.

While the right kind of competition among medical men is healthy, that is, competition in which one physician endeavors to rival his colleague in knowledge, skill and conscientious effort, on the other hand, the form of competition which is directed towards lowering the prices of professional dignity and of medical efficiency is detrimental to the moral, economic and professional welfare of the physician. This sort of competition has already proven a complete failure from every point of view.

There are some forms of contract practice that are legitimate and result in the mutual protection of the physician and patient, such as physician or surgeon to a construction gang or to certain mining districts far away from physicians, but remunerations should be commensurate for the services rendered. A reasonable fee should be paid for the service rendered, whether it be rendered to an individual or corporation. The physician's fee should not be determined by the whim or fancy of any individual or corporation, but as provided for in Article 6, Section 3, of the "Principles of Ethics," by the physicians of said community. The extent of this form of contract practice is enormous and it includes services rendered manufacturing companies, railroads and transportation companies of all kinds, and nearly every industry where men are employed in any considerable numbers.

In the short space of time allowed for the compilation of this paper I found it impossible to present you with detailed statistics bearing on the subject of contract practice. In arriving at approximate figures I consulted men occupying positions which entitled them to speak authoritatively; we estimated the number of individuals in this city each year deriving benefit from this form of practice at 150,000 men and that the services rendered at minimum physician's fees represents a money loss to the profession of at least $750,000 per year.

It will be seen from the figures that I have quoted you this evening that $7,006,664 represents the total sum annually given in the way of medical charity by a little band of practically 3,000 physicians. The Chicago Bureau of Charities is authority for the statement that the total

amount of charity expended in this city per year is $2,500,000. This includes the amount expended by city, county and private organizations of every name and nature. Think of the contrast. A band of 3,000 physicians giving practically three times as much to charity each year as the total population of a city of over 2,000,000 people. Scores of the inhabitants are reckoned as multimillionaires, many of whom enjoy wide reputations as philanthropists.

I have tried to present the subject as it exists in Chicago to-day, and I have attempted to argue and prove to you that medical charity as it exists at the present time is unjust and wrong. I share the opinion of many other physicians, that it is high time for medical men to unite and by concerted action to introduce certain necessary and important reforms, and unless the matter is brought clearly before them and full publicity given nothing will be done. The medical profession does not want to be accused of forming a trust. It would be most undignified if our organization would attempt by organized effort to exact certain fixed fees as is now done by many artists, but it is our moral duty to attempt a more complete organization and by more organized effort protect ourselves from all forms of imposition and injustice that would lower the dignity and ultimately cause its financial and professional ruin.

The question is, How can we put an end to medical charities? The first thing to do is to attempt to effect as complete an organization of our profession as possible, and physicians, like people in lower walks of life, must be educated and those who can not be educated must be disciplined.

Article 6, Section 1, of the Principles of Ethics of the American Medical Association reads as follows: "By the members of no profession are eleemosynary services more liberally dispensed than by the medical, but justice requires that some limits should be placed to their performance. Poverty, mutual professional obligations and certain of the public duties named in Sections 1 and 2 of Chapter 3 should always be recognized as presenting valid claims for gratuitous services, but neither institutions endowed by the public nor by the rich or by societies for mutual benefit, for life insurance, or for analogous purposes, nor any profession or occupation can be admitted to possess such privilege."

Article 6, Section 3: "Some general rules should be adopted by the physicians in every town or district relative to the minimum pecuniary acknowledgment from their patients, and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit."

The spirit of the letter of the preceding sections of the Principles of Ethics of the American Medical Association would forbid any physician to accept the appointment as physician for any corporation, firm, hospital or dispensary, lodge or society wilfully aiding or abetting in any of the abuses heretofore mentioned.

A reasonable fee for medical services, rendered to those able to pay, is not only our moral desert, but is imperative if the progress in medicine is to continue and the welfare of the laity is to be preserved. The

disgraceful nominal fee usually received for contract practice pauperizes the profession and in proportion to its extent lowers the dignity and lessens the usefulness of the medical profession. Such practice contravenes the principles of justice and equity which should be religiously upheld and made the basis of all our professional conduct toward our fellow-physicians and toward the laity. The question of the abuse of medical charity will not be settled permanently until it is settled on a basis of justice, and Emerson says that "justice is the fairest thing all around."

The criticism may be made that this paper is too commercial. In reply the writer would remind his hearers that the time may come in the lives of any of us when an honest dollar will be the best friend we can have. Too many physicians in the past have been defrauded of their just deserts by this promiscuous and unlimited medical charity, and, as the custom seems to be on the increase, it would seem time to sound a note of warning, even at the risk of being thought too mercenary.

34 Washington Street.

THE CHARITABLE CARPENTRY MOVEMENT OF OGACIHC.*

ELMER L. KENYON, A.B., M.D.

CHICAGO.

Being an allegorical study of the rise, progress, present status, and significance of the institutional system of free medical treatment now in vogue in our largest cities, and with the presentation of a comprehensive method for controlling its evils.

About the year 1860 the government of Ogacihc, being short of funds (for the funds were extravagantly wasted in the interest of favored politicians), nevertheless set about to relieve the distress of certain of its citizens. Statements and resulting investigations had shown that in certain houses owned by poor persons the roofs leaked, and that the householders were too poor to make repairs. Winter was coming on and the need of relief was becoming very grave. So the government (chiefly in order to avoid calling attention to its own financial deficiencies) asked for volunteer carpenters to work during evenings or at chance leisure times to mend these roofs. The government would furnish a part of the crude lumber required, the householder might furnish a part, and the carpenter could utilize his own tools. He would sacrifice only his leisure time to the work. Not realizing the direful, far-reaching consequences of such a plan, a host of generous-hearted mechanics responded. The work was quickly done in a short period of leisure each week by the volunteer carpenters. But new holes kept appearing in the roofs of other poor men, and so the service was continued until it became

*Read before the West Side Branch of the Chicago Medical Society; before the South Side Branch, and before the Scandinavian-American Medical Society of Chicago. "Ogacihc" is the inverted spelling of Chicago.

a fixed form of charity. After a few years these charity carpenters became well known as especially skilled in roof-making and mending, and were enabled to command more work and a higher wage than their fellows. They had become specialists. The trade was overcrowded, wages low, and leisure abundant. So, as other carpenters, themselves scratching hard to make a living, saw the favorable economic result to those engaged in the charity work, they, too, offered their services for the repairing, without charge, of poor men's roofs. In order to encourage and expedite this beneficent labor, the government established a central dispensary. To this the poor came to apply for free work upon their roofs, and there also the volunteer carpenters found a shop fitted up in which they could shape the lumber for various repair jobs.

In the course of a few years public conception of the purpose of this charity had begun to broaden. Early in its history no one had thought of applying for aid, excepting in case of actual acute poverty, and real danger of suffering from cold and wet. But it became gradually evident to the citizens that this conception of the service did not meet the purposes of the charity carpenters. Their incentive to enter the work lay in the expectation of increased efficiency through increased experience, and in the advertising which institutional positions gave them. And all could not find private work as roof repairers. So they unmistakably evinced their desire to obtain any manner of job in carpentry. Thus the limitation of free carpentry to roof-mending disappeared.

Moreover, so bent were the charity carpenters upon pushing themselves to high reputation in the trade that they came eagerly to accept free work almost regardless of the economic means of the applicant. What they did "charity" work for was experience and advertising, and nothing but a firm wall of exclusion could prevent their getting a full measure of their desires. And the public soon realized this. So *economy* rather than poverty, *convenience* rather than necessity became the moving incentives for requesting free work. While really important and necessary jobs still came, yet every manner of carpentry ill, both urgent and not urgent, both for necessity and for convenience, both simple and elaborate, both required by those in need of charity and by the comfortable or even well-to-do, were undertaken by the thousands of jobs. Small repairs in roofs were made, doors were hinged, floors were laid, sometimes with expensive hard woods, attractive mantles constructed, woodsheds built, and even whole additions to houses fashioned. The charity carpenters were, indeed, determined to have experience and advertising.

For many years preceding these events two or three schools for the study of carpentry had existed in the city. Heretofore they had found experience for their students by setting them to work upon jobs that had no practical purpose, and by utilizing them as assistants in profitable projects. Early in the course of this movement, however, one of these schools established a dispensary for carpentry upon the lines already employed by the government. People came with their applications for carpentry work, and the students under the guidance of instructors were sent to diagnose the household disorders and to assist in their repair.

The work in all dispensaries was carried on by classifying the service. This was found to be economical of time, more efficient in the results and more pleasing to the charity workers. For each carpenter became so skilful in his especial branch of service that he could do his work more quickly, more effectively and with less effort, and, besides, it helped him to get the higher specialist's fees in his private work. With the leap into success of the first school to adopt dispensary carpentry methods the others followed suit, so that in Ogacihc there were after a time three carpentry schools, each with its own free dispensary. The teachers of highest rank, the professors, exercised supervision over their respective departments and did a chosen part of the teaching work. Usually they gave but little time to the shools and came in touch with the free service no more than to use jobs as illustrations in their lectures, and perhaps to handle the very difficult or rare ones. Those highest in rank usually found the most profitable occupation in private work, as employers of other carpenters upon large jobs, or as high salaried directors of important projects. The lesser instructors did the commoner part of the teaching and labored on the free jobs, thus gaining in experience and catching some of the reflected glory of those higher in rank. They took the less desirable pay jobs and made a more or less precarious living by grasping nervously at each bit of work which lay along their paths. Every subordinate in teaching rank hoped that by perseverance and application and full disregard of well-known sensible laws of economics they, too, might eventually climb over their fellows to the great heights already attained by certain successful professors in the trade.

By this time the general work of carpentry was in a serious plight. Every one realized this, but no one could explain its reasons. It was much more common to be out of pay jobs than to be employed, and yet the dispensaries were always noticeably crowded, and by reason of the resulting desperate struggle for existence wages were taking a steep downward course. But one fact stood out very boldly, the professorial specialists were being heralded as great leaders in the trade, and were in many instances waxing rich. The thing to do for the ambitious carpenter who found the making of a living next to impossible seemed to be to go into dispensary work. Thus he would become skilful in a specialty and would place himself in line for those great professorial rewards. And this they largely did, sometimes immediately upon leaving their trade school, and sometimes after they had struggled on unsuccessfully through a small or large part of their working lives. But after a time the positions in the schools had become filled; and, even if entrance into them were possible, the high-ranking positions, that is, those having a high advertising value, were already occupied by others. It was much more practical, forceful and business-like to at once start a new school in which one could promptly make himself a professor. Why should those already in the schools have the exclusive advantage of this specialty-creating, this quasi charitable scheme of self-exploitation? What was fair for the goose was fair for the gander. So it seemed to those carpenters out in the cold, and so it seems to the wri-

ter. And thus these self-created professors of carpentry were manufactured with lightning rapidity, and so abundantly that one-third or more of the members of the trade were in some way engaged in free work. The title "professor" ceased to indicate the attainment of exceptional capability.

The numerous new schools which came into being had to have, of course, a dispensary and a full patronage of free jobs. Now the intensest competition for free carpentry work came into being. What, with the great government institutions (for positions in which many of the leading carpenters took civil service examinations and groveled before politicians), with the three older carpentry schools each having a large dispensary, and with the dozen or more new schools each demanding its full quota of teaching "material," and with numerous carpenter-exploiting non-educational institutions, the demand for free carpentry service, although already expanded outrageously, was now never nearly satisfied.

Thus there existed a struggling horde of underworked, underpaid and underlived general carpenters, who, besides, were in large part but half-skilled because half-experienced. While one did occasionally discover a really successful general carpenter, now and then even with a very large income, yet most of them were ever struggling for a meager and strained existence. And, on the other hand, there was a large but smaller horde of specialists, of all degrees of capability and experience; of these a very few were becoming rich; a certain small number were really successful; some were making such a living as an ordinary skilled workman could make in any trade, but the great majority, like most of the general carpenters, were groveling for an insufficient existence.

And that portion of the public which obtained a part or the whole of its carpentry repairing free (including people of all degrees of economic comfort and poverty, from the penniless beggar to the man who owned apartment buildings), now numbered one-fourth to one-half the population. Long since hundreds of thousands of people had ceased to reckon carpentry repairing as an expense which needed to be provided for; consequently they never were prepared to pay for carpentry work. To be asked to do so was a cruel and positive hardship which they could not of right be compelled to undergo. The grocer, the clothier, the furniture dealer, the saloon-keeper, and the theatrical entertainer each received a slightly larger amount than when people paid for their carpentry work. In general the money saved from carpentry drifted away without realization as to where or for what it had been expended. Free carpentry had become a part of the economic plan of Ogacihc, and all economic thought among men, employers as well as employés, took cognizance of the fact that carpentry repairing did not have to be reckoned in economic calculations.

Instances were not uncommon, of course, where free carpentry had been a great boon to a household. Sickness and death had been averted, and men temporarily depressed in circumstances had been enabled to climb up more directly, strongly and hopefully. Nothing was more cer-

tain than that free carpentry properly regulated was capable of being vastly useful, and that, too, without doing injury.

Nevertheless investigations showed that, on the whole, those who were in the habit of asking for free carpentry were poorer than formerly and suffered more. The reason was that their standards of thrift, of manliness, of independence, had been lowered. They were less determinedly and certainly ready for the inevitable pay day. The wolf was more than ever howling about their homes. Some of them carried this newly-acquired disposition for getting a service having economic value free to almost criminal lengths. With their minds thrown into economic confusion and into habits of deception by the free carpentry movement, they said, "Does not the generous carpenter give his services free? Then why should not the physician and the clothier? Why should other trades not be as considerate of our struggling?" Or, "Do we not fool the carpenter into working for us without charge? Then why not fool the grocer and clothier?" So these householders ran up bills and "skipped" payment; they came to paying time without means and begged to be excused; anything to avoid coming up to the scratch of manliness and thrift. And occasionally, thus gradually led on step by step, some of these householders dropped into the ranks of the real paupers, those whose manhood had been wholly swallowed up under the devilish conditions of society, of which indiscriminate free carpentry was one.

Step by step a changed conception of the economic service of carpentry had crept into the minds of the carpenters themselves. Formerly carpentry had meant to them a valuable economic service to be paid for as such, and as other services were paid for. In circumstances of need the members of the trade had been called upon and had gladly worked without compensation. Now this almost unlimited amount of free work, although, to be sure, unfortunate for the carpenter and doubtless presenting many abuses, appeared, on the whole, to be necessary and even natural and quite as a matter of course. Other classes of workers, the grocers, the clothiers, the physicians, the bricklayers, the clergymen, were all, to be sure, paid for their services, but were they not relatively harsh and inhuman? The carpenter chose to live upon a more ideal plane than such men. This vast system of indiscriminate charitable carpentry was necessary to the world's welfare, and the carpenter should manfully bear that burden. Such was the altered conception of the economic work of carpentry.

Moreover, there was the great usefulness of this charity to carpentry education. Some argued (especially those who were getting rich through the advertising which high positions in the carpentry schools gave them) that practically an unlimited amount of free "material" must be at hand for carpentry education. How vast was the usefulness of carpentry and how necessary that carpentry scholars should have full practical opportunities for experience in all phases of carpenter work. In order to bring the rarer job in in sufficient numbers it was necessary to have under control thousands upon thousands of ordinary jobs, whether these were needed for carpentry education or not. Such was the argument.

But since there were three or four times as many schools as were needed for carpentry education, and since new ones, as well as new non-educational institutions, were (for the purpose of self-exploitation) being every now and then created, and since, as a matter of course, each new school, in order to compete, worked for a full amount of free material, the outlook for pay carpentry in the city seemed bad, indeed.

Yet with all this boastful, hypocritical and ridiculous self-laudation the carpenters were anything but satisfied with their charity system. They then saw dimly what they came eventually to see clearly, that, in large part, the subordinate special carpenters were right along doing institutional jobs free which would of right serve them most needfully in private work. They were dimly realizing, what they came to realize clearly later, that a group of carpenters did not scruple a whit to enter a neighborhood with a school and, for purposes of their own exploitation, proceed to rob the local carpenters of their pay work. The institutional carpenters were also beginning to see, what they saw clearly later, that while the free system was an almost ideal exploiting medium for the professors it was a wily snare for the subordinate teachers and the general trade of carpentry. Those whose work lay among the well-to-do and rich were almost the only ones who benefited, for their clientele was little disturbed by the free system. So the lesser teachers worked systematically to destroy their own constituency, thus enabling the professors to build great reputations that would allow them to exploit with high charges their wealthier clientele. Of course, the lesser instructors hoped that they, too, would become professors and be employed almost altogether by the well-to-do classes, and thus be able to command high fees and to trample upon the rank and file of the trade. But this hope was largely unfounded, since the work for the wealthier people would always necessarily be done by a relatively small number of carpenters and since, also, the subordinate teachers must always outnumber the professors five or ten to one. At any rate there grew up a deep feeling of discontent with the system.

Through this unrest arose a voluminous literature published in the carpentry journals. On the one hand, it was argued that criticism was captious and unfounded, that carpentry education must have "material" and it ought even to be larger rather than smaller. Others felt that the movement was some how or other a huge blunder, or involved such a blunder. No one saw far into the difficulty. The thing to do was to lessen the "abuses," that is the doing of work for the economically capable; but schools existed which still lacked sufficient "material"; this called for an extension, not a curtailment of the system; in general to lessen the free service was to strike a blow at carpentry education. A curious mistake in all this discussion was the almost universal disposition to blame some indefinite, some institutional agency outside the carpenters, for thrusting this evil upon the long-suffering trade, instead of blaming the carpenters themselves.

A member of the trade who was in the free work in some obscure capacity, believing that his difficulties in getting on were due in large

part to the charity system, set out seriously to understand it. After some years of study he published a book, which for the first time disclosed the real meaning of the movement. He pointed out (1) the appalling prevalence of real poverty in the city. While the newspapers and politicians and superficial observers cried "prosperity," thousands upon thousands were ever on the verge of dependence or had passed beyond. He advised each carpenter to become an independent student of economics. Being grounded in knowledge, he would be less swayed by the superficial politico-economics of the day and would be better able to throw his influence in the right direction for the eradication of the real underlying causes of poverty.

He said (2) the carpenters greatly deceived themselves in looking upon this vast anomalous system of free work as carried on chiefly either for purposes of charity or for purposes of carpentry education. Its driving motive was self-exploitation on the part of the institutional carpenters themselves. Charity and carpentry education were little more than excuses upon which a system of trade exploitation had been built. The proof of this assertion lay in the fact that the free carpentry system paid no attention whatsoever to the limitations of the needs either of charity or of carpentry education, and also in the eagerness with which the carpenters sought institutional positions and entered into the free work.

Why the carpenters had drifted into this particular means of self-exploitation was explained chiefly by these considerations: first, carpenters were ordinarily ill prepared to undertake the work they were called upon to do, which made them zealous in gaining new experience; second, they sought to gain the much-prized advantages in practice of becoming specialists, and, third, the ethical rule of long standing in the trade denying the right of carpenters to advertise directly by newspaper, circular or similar methods, forcibly drove them to indirect methods of advertising. In order to live they must make their existence and merits known somehow or other; only in that way could they get jobs. So the "charity" system, he said, was an attempt on the part of carpenters to gain experience, thus adding to their earning power, and to advertise while keeping within the ethical rules of the trade.

He said (3) the charitable carpentry system was a venture in economics, and must rise or fall upon its ability to stand economic tests. Instead of leaving the work of carpentry to the ordinary laws of competitive trade, it diverted a vast proportion of this work into free channels. Its proposition was, broadly speaking, that carpenters should receive compensation for carpentry work only from those who chose to pay; but those who chose to pay were getting less and less in numbers. There was to be no diminution in the amount of carpentry work done, but there was to be curtailment in the number who paid. Either the income of carpenters by such a plan must be enormously reduced, or else those who did pay must pay more. But it was impossible not only to get more compensation, but under the great stress for work it was impossible even to get so much per person as formerly from those who paid, and, besides, the number who paid was lessening; therefore, the income

of carpenters must greatly fall. And since every trade or class of occupation was, as a whole, living close to a bare sustenance, the carpentry trade included, any large diversion of economic return from one trade to the others was in the last analysis impossible without the practical impoverishment of large numbers of workers, and this was deeply unjust, and, therefore, deeply immoral.

He said (4), as a self-exploiting scheme it was impossible, because no plan of self-exploitation which necessarily reduced the total income was rational. Individuals might find the scheme profitable, but this must necessarily be at the expense of the whole trade. Those who did gain by it gained by reason of their ability to debauch the clientele of other carpenters while maintaining their own nearly unaffected.

He declared (5) the system was intolerably injurious to the public, first, because it did not do what it pretended to, it did not care faithfully for those in real need; and, second, because it did much more than it pretended to, it debauched the character of many thousands of citizens. The system, feeling little responsibility to its free clients, did its work shamefully, and the common neglect of free applicants was as likely to fall upon those in real need, with consequent increase of suffering, as upon others. Who could tell, he said, the far-reaching effects of going deliberately to work to undermine on a vast scale the sense of economic independence of a people?

(6) He said: The system was a serious drawback to carpentry education, because it made a personal advertising scheme of what was really a deeper matter; its effect was to lower the ideals of carpentry education; this work was being done largely in poorly equipped institutions by self-exploiting carpenters, with but scant regard to ability or fitness; the system spread educational resources which ought to be concentrated and selected; it even made impossible what it most pretended to do, namely, to supply free carpentry "material" in abundance, for, owing to the ridiculous multiplication of schools, a large percentage of them still lacked in "material"; it was most wasteful of its carpentry jobs from the educational standpoint, fully one-half not being utilized at all for educational purposes; by reason of its playing with carpentry education it discouraged endowments from laymen; in general, trade education was the football of ambitious carpenters, who, with little interest in education as such, were endeavoring to kick the educational ball into exploiting their own private fortunes.

The system as conducted, so the author declared, was, as a whole, a scurrying on the part of drowning carpenters, who, in order to save their economic lives, grasped even at self-destroying supports, believing them to be life preservers. Its insanity was destruction to its insane upholders. Remedies capable of taming it into rationality must be sought and applied, and fortunately these were not difficult to find. The remedies must seek (1) to protect the carpentry trade against economic imposition; (2) to provide faithful service for really needy persons; (3) to discourage the debauchment of character and encourage the independence of spirit of all persons concerned; (4) to improve the methods of

carpentry education by concentrating effort, elevating standards and assuring educational "material."

The basal purpose of a remedy, he said, was to limit free service to persons in actual need of charity. The very human tendency to take advantage of free offerings, regardless of need, must be effectively combated. This was the foundation of all proper handling of the evils of the system. To this aim no one could fairly take exception. The problem was, then, to devise ways, first, to distinguish between persons who should and persons who should not have service free, and, second, to determine upon proper means to compel the limitation of the service to those decided to be in actual need.

The first part of the problem would necessitate a real investigation of the economic circumstances of every applicant, and that, too, by experts in such work. So a competent and fully accredited machinery of investigation must be established. This was to be undertaken wholly by lay workers, but with the oversight and sanction of the carpenters themselves. Having established such a bureau of investigation, it must become the invariable rule that no person should receive service in institutions free until passed upon by this accredited tribunal. The enforcement of this rule would constitute the second part of the problem.

It was one thing to make such a rule, the author declared, and quite another to have it executed. Could men who were showing such remarkable zeal and energy to perpetuate and extend the evils of the system all be relied upon to revise their methods voluntarily? Would general knowledge of human nature give ground for such a hope? The breaking of the rule in one place would be the excuse for its breaking in all places. Had not the confusing factor in all suggestions heretofore advanced proposing the limitation of free work been the lack of a means of making the application of the suggestion extend to all institutions and to all members of the trade? One school could easily enforce a rule among its own members, but would this be of more than slight effect upon such an extended evil? Nor would the enforcement of the rule among a dozen schools much more than lightly affect the problem. What was required was a means which would influence every carpenter to refuse free institutional work, excepting for those favorably passed upon by the accredited investigating tribunal. Thus would the evil be choked at its very source, and thus alone could it be successfully handled.

Let it be remembered, he continued, that already the carpenters were, by a self-imposed rule, restrained from direct advertising. As direct advertising worked injury to the public, so abuse of free service worked injury both to the public and to the trade. As the injury resulting from direct advertising was overcome by a rule of the carpenters, so ought the injury from the abuse of free service to be overcome by a similar rule. That rule should declare that any carpenter who did institutional work free for persons not favorably passed upon by the accredited investigating tribunal should be declared unethical and unworthy to associate with his fellows in the trade. The author's plan of handling the evil was, then, first, to see that every case was adequately investigated before

free service was granted, and, second, to curb the trade tendency to abuse free service for purposes of self-exploitation by declaring such abuse to be unethical.

The first effect of the adoption of this plan, he went on, would be to bring the schools and high-grade non-educational institutions fully into harmony with it. No carpentry school which was unethical could live a year. With growing scarcity of free "material," the disposition to build new schools would have an important setback. Some institutions already in existence would discontinue. Others would consolidate. Competition for free service would now increase among the remaining schools, but, the supply being limited, the competition would take the form, not of greater debauchment of the public and impoverishment of the trade, but of improved service to the free applicant, one of the most important needs of reform. Granting that the "material" required for carpentry education ought to come through the utilization of charity jobs, it was necessary at present only to economize those which were really legitimate. For, in view of the fact that 20 or 25 per cent.* of the population of Ogacihc were verging dangerously close to actual misery and want (that is, 400,000 to 500,000 in a city of 2,000,000 people), there was no fear of lack of educational material, if only the number of schools could be kept reasonably within needed limits, and if the jobs were used economically. In other words, curb that form of trade exploitation which had led to the ridiculous multiplication of the schools and non-educational institutions, and material would, as a matter of course, become abundant, and that, too, without wholesale impoverishment of the trade. Moreover, it was to be devoutly hoped, he said, that the need for charitable carpentry work would eventually grow so small that carpentry education would be obliged to look elsewhere for its "material." Why had the educators never thought of utilizing (upon broad humanitarian grounds) the unlimited supply of service which was regularly paid for? Here was untold weath of educational material. And if it was so necessary, he said, to have the much discussed and much exaggerated "rare job," then let carpentry education pay directly to get it, rather than impoverish a trade and debauch thousands of the population of the city to that one end. Eventually, if need be, the number of schools could be controlled by direct trade or government regulation. At any rate this wholesale impoverishment of carpenters ostensibly to feed carpentry education must forever cease, regardless of what became of the schools. Carpentry education must build its structure upon more sane and moral grounds than upon the pauperization of a people and the impoverishment of a trade.

Another of the immediate effects of the acceptance of this plan would be a falling off to the number of many thousands of those who heretofore have regularly sought free carpentry service. These would at once revert to the private work of carpenters. This number would under judicious encouragement greatly increase. But carpentry, although upon a saner and healthier basis, would, even then, have a burden

*Robert Hunter in "Poverty."

to bear which would cause the biblical 10 per cent. for charity to fade into significance; for it necessarily would be involved in free work for an enormous number of indigent persons, the outcome of immorality, weakness, accident, death, and a deficient general economic system. Since carpentry must in any case struggle under this necessary economic burden, what a stupendous folly it was to pile on twice as much unnecessary load.

PSYCHOTHERAPY.*

G. A. Fuson, M.D.
HARRISBURG, ILL.

The wise and good of every age have speculated on the nature of the human mind. No man lives or ever did live who has not marveled at its phenomena. The most ignorant asks whence we came, and the most learned whither we are tending. The youngest child able to talk inquires where the baby was obtained, and the venerable sage declared that one of the questions past finding out was how the bones do grow in the womb of her who is with child. Infinity stretches out before us on every hand—infinity of magnitude, infinity of space, infinity of weight, infinity of personal identity and, last of all and greatest of all, infinity of thought and imagination, and around it all and through it all force acts upon matter, matter stores up and generates force, both unspent, both unincreased, both indestructible and both subject to the unchangeable laws of natural symmetry and order.

The evidence of the existence of the mind is also evidence of its phenomena as exhibited through the body. What the evidence of so-called spiritism is worth to those who claimed to have perceived such evidence I do not know, but for the purpose of scientific investigation it is useless. Heretofore we were taught that all phenomena of Nature occurring outside the movements of men were legitimate objects for investigation by men of science. It was considered not only their privilege, but a duty as well to discover, if possible, the laws that governed them, but those phenomena operating directly within the realm of mankind, those forces that affect the movements of individuals or a people were considered too sacred to be questioned, too holy to be investigated. And so we find that until comparatively recent years no inquiry was ever made in the light of science concerning the phenomena of the human mind. But under the broadening influence of science, the mind has expanded until it has become worthy of study. Those psychologic phenomena that once awed the savage and filled a younger world with fear are now the objects of most painstaking inquiry at the hands of scientific men, and the fact has been established that they no longer belong to the miraculous realm, but are the direct result of a law in Nature not yet understood, but nevertheless as natural and immutable as that of gravitation.

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* Read before the Saline County Medical Society.

The magicians, seers and soothsayers of a barbarous world and the witches of our colonial days have given place to the suggestive therapeutist, the hypnotist and the Christian Scientist of a more enlightened age. That is to say, excepting the last named, that psychologic phenomena is being stripped of all superstition and placed side by side with other wonders in Nature's treasure-house. In view of the limitations of the mind to comprehend its own phenomena, we must content ourselves with the facts as they are developed and learn to apply the truths as we are able to grasp them. One truth established by science and the one that interests us at this time is the fact that the mind has the power to favorably influence disease, and it is upon this phase of psychology that I am to address you to-day.

The mental and physical mechanism of man is such that no action occurs without a preceding thought. The mind must think before the muscles can act. This holds good not only in those actions that are directly under the control of the will, but also in all involuntary actions which are themselves directed by subconscious thought. Even the movements of the death struggle are but evidence of an incoherent message from the subconscious mind.

Actions have much to do not only in determining the moral status of an individual, but they have a bearing equally great upon his physical well-being. As a man thinks so he acts, and if he thinks his happiness and that of his family depends upon his keeping pace with these strenuous times, this later-day hustle and bustle, he too often finds his strength taxed to the utmost, and the ruddy glow of health that once bedecked his cheeks gives way to an ashen hue; his eyes lose their luster; his muscles, once elastic, now functionate but sluggishly; his blood no longer surges through his veins, but merely moves along as if without motive, and he feels as tired at morning as he did on retiring the night before. But he must not stop; he can not spare the time, and so he pushes on until despondency puts her stamp upon his mind and he is sick. If a woman thinks her life almost depends upon her keeping up with the fashions, she will often find herself out at night with bare arms and neck exposed to an atmosphere that chills the skin and drives the blood within the inner vessels, unduly engorging the viscera; she will squeeze herself into a cast that displaces the pelvic and abdominal organs; she will keep her nerves in a constant tension through day and through night, entertaining and being entertained, and ere time puts a single wrinkle in her brow her physical strength gives way beneath the strain and she becomes a nervous wreck. And so I might go on to illustrate in a hundred different ways to prove that our physical well-being depends very largely upon our actions, and that actions are always preceded by thought.

Having concluded, therefore, that actions are prompted by thought, let us discover, if possible, the origin of thought. This fact will give us a clue to the understanding of how best to get control of those actions that result in ill health and at the same time broaden our conception of what psychotherapy is and what it is destined to accomplish. It must be admitted that no thought arises spontaneously in the human mind;

that is to say, the mind can not create even in imagination. If you see a white rose, you may easily think of all the different colors, or if you taste a luscious apple it is no trouble to think of many flavors, but you can not think of a color you never saw nor a taste you never experienced. Imagination can give to a man the head of a horse, a lion or an eagle; it can furnish him with wings, horns or a tail; it can give to him the instincts of a fish, a bird or even a butterfly hovering about the flowers; it can supply him with any form or habits possessed by any known beast or fowl or inanimate object, but it is utterly impossible to conceive of a being having neither parts nor passions. So, too, our wants are limited by the horizon of our experience. We can not desire that which is unknown to us. The man who has lived on a farm, who has never breathed any other than the atmosphere of a country life and who has never been permitted to read the papers nor talk with the experience, would have no wish or desire to take a ride on a trolley car or listen with impatience to the phonograph each evening after the sun went down. If the mind can create, it can also annihilate; the one is no more mystifying or difficult to perform than the other, and annihilation is something we all agree can not be accomplished by any force, great or small.

What, then, is the source of thought? Is it a child of the brain or does it spring from that mysterious realm called the mind? Is it a gift divinely sent or it is a result of the association of other phenomena in Nature, such as is demonstrated in the growing grass and blooming flowers? Right here I wish to say that upon this question there is little known; much that is unknown but about which speculation has woven many an intricate web. When Galileo saw the chandelier swinging to and fro, it gave a thought to his mind that later produced the pendulum. When James Watt saw the steam lifting the lid of the teakettle, there was born in his mind a thought that in after years gave the steam engine to the world. As with Galileo and Watt, so with all inventors; their work is in no wise a creation, but a discovery, and the thought in each instance was first suggested to the mind by some phenomenon in Nature.

As man's wants increase and these are made known to his mind through one or more of the five senses, he at once seeks the very best way to supply them. This leads him to investigate and to investigate leads to discovery and discovery to progress. It would seem from this, then, that suggestion is the father of thought. The same phenomenon, however, do not produce the same thought in each individual mind. No doubt the chandelier and the teakettle were seen to move by thousands long before the proper thought found proper soil for the planting that gave such a harvest. But it appears to be universally true that thought comes by suggestion or, in other words, it is the result of association of thoughts with thoughts, or of thoughts with other phenomena.

We have now proceeded far enough in our investigation to state this proposition—that good health depends very largely upon good actions, good actions depend upon good thoughts and good thoughts are the direct results of good suggestions. It seems to me that it is upon this

basis that the whole structure of psychotherapy rests. Climate, association and heredity all play a conspicuous part in determining the mental make-up of man, but beyond this we can not go until more light is shed to scatter the gloom of ignorance. The realm of motive and desire is impregnable; the world wherein is born individual idiosyncrasy has never been explored, yet the field of psychotherapy is almost boundless, and it is to the practical side of this question that I now desire to call your attention.

There are two principal methods by which we may psychically influence our patients: First by stating an hypothesis, whether true or false, that is in harmony with the patient's accustomed beliefs and induce him to reason therefrom; second, by stating a true hypothesis irrespective of his beliefs and teach him to reason from that basis to a true and logical conclusion.

The first mentioned method, commonly known as suggestive treatment, is practiced consciously or unconsciously by every physician. To this form also belong whatever success is and may be attained by the many different schools of faiths and isms and carried to its extreme degree is known as hypnotism. Through this method also the medicine quack and nostrum vender reach the purses of their victims, and by it many people are influenced to acts which, when not under the spell, would be utterly foreign to them. Every young doctor who enters the medical arena seems intuitively to realize that much of his future success depends very largely upon his personal appearance, and, though every one may not bedeck themselves with a showy Vandyke or Prince Albert, each strives to carry himself with that air of professional and personal confidence calculated to inspire his associates with wonder, if not with awe. When he speaks he manages to let slip a Latin phrase or a high-sounding word now and then that will cause his hearers to believe him educated, to look upon him as being well read and up in his profession, and the history of the past has taught us that the more the doctor spreads on without becoming affectatious, the more successful will he be with a large percentage of the people. I mention this merely to show that this form of suggestion, if it succeeds, must harmonize with the patient's accustomed beliefs and does not necessarily seek aid from his higher intelligence. It depends for its success upon the patient's credulity, upon his willingness to believe what he sees and hears. Each statement from the physician to such a patient should carry with it the assurance or even promise of cure.

Aside from his personality, which is of no mean importance, the physician must not waver nor hesitate; his remedies must be accompanied by words of assurance that they will cure. When using this form of suggestion it is not necessary to listen long to the patient's description of his ailment, but rather grasp the situation and tell him how he feels. This, if rightly done, establishes a confidence that will be more responsive to the suggestions along the line of treatment.

An impressive personality and the assuring words are not all the requirements necessary to a successful physician in the practice of

psychotherapy. He must first have absolute confidence in himself before he can inspire the required confidence in his patients. And by reason of his knowledge, based upon study and experience, he must feel that he is master of the situation. He must entertain no doubts himself as to the outcome of the case, if he would do the greatest good. The natural tendency of all disease is toward recovery, and the principal business of the doctor is to allay the annoying symptoms. Many of these symptoms are the result of fear on the part of the patient and the tension due to dread, which the doctor's presence and assurance relieves. In view of the fact that most diseases run a specified course, it is difficult to draw the line where psychic treatment ends and medication should begin. Every man, woman and child is a law unto himself, not only when viewed from a standpoint of psychotherapy, but from that of medication as well. No hard and fast rule can be given, but each individual case must be studied on its own merits. Wherever an unhealthy thought is found, it should be eradicated and its place supplied by a healthy one. If a person thinks he is dangerously ill, he is sure to be in a state of restlessness, his whole body will be in a tension, and under such circumstances not an organ in his entire system can perform its function normally. Supply this morbid thought with one radiant with hope and you have mastered the case.

Have you ever noticed how closely you are watched by the patient when at the bedside of the sick? The sufferer is reading your face, and he has learned long ago that the face is the true index to the mind. Assurance and confidence should characterize every word, every look and every movement of the doctor when in the presence of his patient. Just as pathologic conditions must be supplanted by physiologic ones, so too unhealthy thoughts must be changed to healthy ones. This gives to the patient peace of mind with its attendant relaxation, more important than which there is no greater, no more beneficial therapy. Had the medical profession recognized this fact a hundred years ago and utilized its power for good to the extent it so richly deserves, faith healing, Christian Science and all allied isms would be unknown to-day.

The second method by which we may psychically influence our patients and the one, in my judgment, destined to take the place of all others, is that which may be known as psychotherapy by educational means. The patient is made to understand his real condition by a true and logical explanation of his symptoms, their causes and probable duration. If an ailment is a physiologic one (and most diseases are) explain this to him and let him understand the difference between this and sickness due to anatomic changes. Teach him the truth. Let him know what disease is; that it is not an entity, not an individuality, but a condition, and that this condition must be righted by forces from within rather than from agents administered from without. In my judgment, it is no mistake to inform him that drugs do not cure, but that they are merely helpers. This will give him an hypothesis from which to reason, and he will be able to account for his own symptoms and their continuation. He will then readily submit to the condition and wait with pa-

tience until his health is restored. He does not toss about on his cot in a restless worry; he is not continually telling you at each visit that your medicine has done him no good and you will not have to scratch your head so often for some apparent excuse for his continued pain, but, knowing the condition, he can understand why he feels bad and that it is impossible to be sick without suffering pain.

I hope I have made myself clear on these two forms of suggestion, or, rather, the same suggestion applied in two different ways. Each of these two forms has its field of usefulness, and there are many people suffering from diseases whose reason can be of little assistance to the physician, but I believe it our duty to do all we can by direct education to clear the public mind of the erroneous belief in drugs and disease and pave the way for a more substantial and more nearly perfect system of therapy. No science can stand upon falsehood; no therapy can endure within whose foundation there is a single placebo, and so I believe that truth instilled within the minds of men will be productive of more good than any form of deception.

I would carry this teaching, this education, into the field of preventive medicine. Here is the greatest work. For just how much sickness is due to published testimonials and advertising literature and general lack of knowledge along this line is difficult to tell, but one thing is certain, when the public thoroughly understands the true relation of drugs to disease, quacks and nostrum venders will have to hunt a new job. When the people come to know that it is the patient that needs the treatment and not the disease, patent medicines will go begging.

THE TREATMENT OF GENERAL PERITONITIS COMPLICATING APPENDICITIS.*

DANIEL N. EISENDRATH, M.D.

CHICAGO.

Our mortality in the operative treatment of the various forms of appendicitis has decreased materially in the past fifteen years. Operations performed during the interval between recurrent attacks are accompanied by a mortality of a fraction of 1 per cent. Almost the same good results are beginning to follow the removal in the acute stage either with or without abscess formation. Our percentage of recoveries, however, in that much-dreaded complication of appendicitis, viz., general or diffuse peritonitis, is still too high in the hands of the majority of operators. If surgeons could only secure the cooperation of the general practitioner toward achieving earlier operation, the number of recoveries, even in this last named class of cases, would leave little to be wished for. It is with the object of calling the attention of our medical colleagues

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to the possibility of such cooperation that this paper is written. Before proceeding to discuss the results of our treatment of these cases at the Michael Reese Hospital, of Chicago, it will be necessary to take up a few general considerations.

We must first define what we mean by general peritonitis. The most generally accepted definition is distribution of exudate free in the general peritoneal cavity without any tendency toward walling off. In some cases of general peritonitis there are multiple encapsulated collections of pus. Such cases have been termed spreading or progressive peritonitis, and, although the foci may be widely distributed, they form a class by themselves. Some claim that we can not speak of a general peritonitis unless every portion of the visceral and parietal peritoneum are involved. It would be folly to insist upon every case fulfilling this requirement. In every day work when we open an abdomen and find a seropurulent or purulent exudate as far as the eye can see without any effort at encapsulation, accompanied by corresponding macroscopic changes in the peritoneum itself, both visceral and parietal, we are justified in speaking of a general or diffuse peritonitis. As we open the abdomen in more and more cases the fact is becoming very apparent that there is (a) a difference in the virulence of the same organism, and (b) there is a disproportion in many cases between the pathological changes seen in the peritoneum and the clinical symptoms. In other cases the study of living pathology has taught us that the streptococcus or the colon bacillus taken at operation from two individuals may grow the same upon all of our known culture media and yet the appearance of the peritoneum, the amount and character of the exudate, and last, but not least, the clinical signs of infection, be entirely different in the two individuals.

This variation in virulency or toxicity of the same organism is a most important factor in the prognosis of every case and one which we can not estimate in advance. Two patients may appear equally ill and receive the same treatment in every detail, yet in one case the infection is controlled and the patient gets well, in the other it is not so mastered and he or she dies in spite of every effort. In some cases a patient who has been ill twelve hours will show few macroscopic changes or exudate and yet the clinical phenomena will be those of the most severe and often fatal type. Ordinarily a general peritonitis is the direct consequence of the escape of the organisms through a perforation or gangrenous area of the appendix. Our views in regard to these as the only avenues of infection are changing. I have personally had three cases in which most scrupulous examination at the time of operation failed to reveal any macroscopic perforation. In our series of 34 cases, the condition of the appendix was described in 30. In 7 of these there was no visible perforation.

In a recent report of 65 cases of peritonitis after appendicitis by Hirschel,[1] there were four in which no perforation of the appendix

1. Beiträge zur Klinischer Chirurgie, vol. lvi.

could be found. In two of these there were only catarrhal changes in the appendix, but the exudate was thick and purulent. Noetzel and Sprengel have also reported similar cases. In our own cases of peritonitis without demonstrable perforation of the appendix, the exudate was seropurulent and the appendices showed varying degrees of acute catarrhal changes. Lennander[2] has shown that peritonitis can occur after an acute enteritis without a perforation. Oppenheimer[3] and Martin[4] have also reported cases of general peritonitis without demonstrable lesion.

The only other points I wish to mention in the pathology are: (a) The septic paralysis of the intestines; (b) the involvement of the parenchyma of the kidney, liver and heart muscle. As to the septic paralysis, this is the cause of the abdominal distension and of the vomiting. In the majority of cases it does not appear until the third or fourth day. When present, it is a most important factor, because the intestinal muscles above the point of paralysis attempt to contract in order to propel the septic fluid contents toward the anus, but instead, a retroperistaltic wave sets in and the persistent vomiting so distressing to the onlooker, soon ends the picture. I shall speak of the value of enterostomy as a life-saving measure in such cases later. The involvement of the liver, kidneys and heart muscle is equally as vital a factor. In one of the writer's cases the general septicemia carried off the patient in spite of apparent recovery from the peritoneal condition. These are the cases which have been correctly termed peritoneal sepsis.

The length of this paper will not permit of a long discussion of the diagnosis and differentiation of these cases from other causes of peritonitis. There are, however, a few points to which I wish to refer briefly. The most valuable clinical evidences of the presence of a peritonitis are rigidity and tenderness over the abdomen and increasing rapidity of the pulse rate. I now speak of diagnosis in the first 72 hours, when operative treatment can still be of avail. After that, every novice can make a diagnosis from the septic appearance, dry beefy tongue, rapid weak pulse, general abdominal distension, absolute constipation and persistent, often fecal vomiting. *It is criminal to wait until such symptoms appear before making the diagnosis.* If a patient who has shown the generally accepted initial signs of appendicitis begins to be rigid and tender to the touch all over his or her abdomen with a steady rise in the pulse rate, even without fever, leucocytesis, distension or vomiting, there is enough presumptive evidence upon which to base a verdict of a general peritonitis. The presence of a rise in temperature and of a leucocytosis are such uncertain factors that their value is only collateral, i.e., if there is a leucocytosis and fever, accompanied by general muscular rigidity and tenderness and increasing pulse rate, these two signs are of considerable value. In many cases, however, the leucocytosis is either absent or a little above normal, owing to lack of resistance, and unless we interpret

2. Zeitschrift für Klinische Medizin, vol. lxiii.
3. Deutsche Zeitschrift fur Chirurgie, vol. lxxxiii.
4. Annals of Surgery, vol. xliv.

this in connection with the other signs we are apt to be led astray. The same is true of temperature, which may or may not be higher than normal. The pulse rate is very rarely subject to such variation, although it is in a few cases surprisingly low in proportion to the degree of infection and exudate.

This little digression to consider a few of the points in relation to diagnosis was necessary in order to fully appreciate the difficulties of treatment.

General peritonitis was formerly regarded as an almost certainly fatal complication of appendicitis. This pessimism has given way to decidedly optimistic feeling. If such cases can be operated by the surgeon during the first 24 to 48 hours, the majority can be saved. Where the percentage of mortality was 75 per cent. fifteen years ago, we can reduce it to 10 per cent., or even less, by operating early and using better judgment in the selection of cases. By the latter statement, I mean refusing to operate cases with such advanced symptoms of sepsis that operation rather hastens a fatal outcome.

Reference will be made later to the greater usefulness of the opium or starvation treatment in tiding such patients over to an interval operation. Earlier diagnosis alone is not the only factor which has improved our percentage of recoveries. The other factors which have contributed materially are: (a) The use of some form of postoperative position which will favor drainage toward the pelvis; (b) a minimum amount of handling of the intestines; (c) rapid technic in the removal of the appendix; (d) by aiding the elimination of toxins through the kidneys by the use of large quantities of normal saline solution given continuously per rectum. This latter aid was first brought out by Dr. J. B. Murphy. Irrigation of the peritoneal cavity with salt solution during the operation has not been mentioned as one of the aids because equally good results are being obtained without it.

Let us consider these methods a little more in detail. (a) The postoperative position. Muscatello has shown that the principal absorbent surface of the peritoneum was upon the inferior or abdominal side of the diaphragm. The lymphatics here are the most numerous and active, very few lymphatics being present elsewhere. George R. Fowler, of Brooklyn, was the first to utilize this knowledge by placing the patient after operation in an upright position, thus allowing the septic material to flow toward the pelvis, from which it was removed by properly placed drains. The Fowler position is not easy to maintain, especially if the patient is restless, and tends to slip down. A much easier position in many cases is elevation of the head of the bed, but I do not believe it is as effective. Some surgeons have attempted to overcome the difficulty of drainage by making counter incisions in the lumbar regions and permitting an ordinary supine position. With the idea of preventing patients in the Fowler position from slipping down, the writer has modified the ordinary back rest by placing crutch-like arms under the axillæ.

These supports can be raised or lowered or brought further toward the median line in order to accommodate the different widths or heights of patients. I have used it in my six cases with very satisfactory results. The axillæ must be well placed in order to prevent any nerve pressure. A similar idea is that of Dr. J. E. Allaben, of Rockford,[5] who employs an ingenious wooden device for maintaining the same position.

The use of the Fowler position has been one of the most important factors toward effecting a greater number of cures in these cases of peritonitis. The second and third improvements in our treatment, rapid technic and minimum handling of the intestines require but little special mention. It was formerly the custom to make a large incision, eviscerate the intestines and irrigate or rub off the exposed coils. The exposure and replacement of so many coils was the cause of great shock and often turned the tide against the patient. We now make a small incision, remove the appendix as rapidly as possible and do not expose a single coil of intestine more than is necessary in retracting the edges of the small incision.

The fourth aid, viz., the continuous rectal administration of saline solution, is also a vital factor. If given so that a drop will run into the rectum every second with very little pressure, the irrigator not being placed more than eight inches above the level of the bed, it is surprising how large a quantity of the fluid will be taken up. It is not unusual for ten pints to be absorbed in 24 hours. It promotes diuresis, keeps the tongue and skin moist and quenches the almost insatiable thirst.

Our ordinary method of administering the saline solution has been to keep the liquid at a temperature of 100 degrees by surrounding the irrigator with hot water bags. This requires considerable attention on the part of the nurses and in order to be sure that the solution was maintained at a constant temperature. I have devised an apparatus which consists of a double jacketed cone of tin or copper. The water can either be heated by an alcohol lamp placed at, or better still, by a little electrical device which will maintain a constant temperature. The saline solution is in the glass percolator whose sides are in close contact with the water jacket. The flow is regulated by a screw placed on the rubber tube and the temperature of the water can be taken by inserting a thermometer into the percolator. This apparatus has been used by some of my colleagues and the writer with great success.

A few words more in regard to some of the other aids. There is considerable discussion at present as to whether the peritoneal cavity should be flushed with saline solution during the operation or no irrigation used at all. Equally good if not better results are being obtained by the so-called dry method, which consists in simply placing a drain after the operation without any attempt at irrigation and it is the judgment of those who are obtaining a large number of cures that irrigation is superfluous.

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5. Journal of the American Medical Assn., 1907.

The material employed for drainage is also a matter of individual experience. Only three varieties need to be considered: (a) Glass or rubber tubes; (b) cigarette drains; (c) Mikulicz or umbrella gauze drain. Each method has its warm supporters. Our own results were equally good with all of these, but I believe that the rubber tube or Mikulicz drain will be sufficient for all ordinary cases. There are still two points in the postoperative treatment which I wish to refer to briefly. First, it is not necessary to give cathartics to these cases, and the same is true of drugs which promote peristalsis like physostygmin. The more the intestines are kept at rest the greater our chances of preventing diffusion of the pus. A mild enema given every day will suffice for the first week or longer. A second important point is not to fill up the patient's stomach with fluids. If saline solution is given per rectum these cases can get along for three or four days with only a small amount of fluid, say an ounce or two every hour after the first 24 hours. In two of our cases death was directly due to acute dilatation of the stomach, the result of too liberal administration of fluids during a time when the septic paralysis of the intestinal coils would not aid the absorption of these fluids. I now insist upon the greatest caution in this direction.

I wish to report 34 cases of general peritonitis which were admitted to the services of Drs. L. L. McArthur, E. W. Andrews, L. A. Greensfelder and the writer in the Michael Reese Hospital, Chicago, during the past nine years. These cases were operated upon, as a rule, immediately after admission. Our system of filing histories has only been perfected during the past year, so that undoubtedly some cases have not been included in these statistics. These 34 cases were admitted in all stages of the disease and the results are about the same as are being obtained elsewhere. Our percentage of recoveries in these 34 cases was 59 per cent. This embraces patients operated upon during advanced stages of the disease. In a number of these the patients were in such desperate condition that death occurred within a few hours after admission. We have now learned not to operate on such hopeless cases, but to treat them by elevating the head of the bed, giving them saline enemas containing coffee and whisky and nothing by mouth. There is no question in the mind of the writer that far better results can be obtained in these advanced cases by such a modified Ochsner treatment, than by operation.

For the above reasons our mortality may seem rather high. If, however, we note the day of the disease upon which operation was performed, there is a material difference and the results are the equal of any obtained in the best general hospitals to-day. Of 21 cases where the day of the disease was mentioned in the history 2 cases were operated during the first 24 hours with 1 recovery and 1 death. In 10 operated on the second day there were 8 recoveries and 2 deaths or 80 per cent. recovery. In 6 operations on the third day there were 2 deaths, i. e., 66 per cent. recovered. These results compare very favorably with those obtained at the large American and European general hospitals which were as follows:

	Cases.	Mortality Per Cent.
Moynihan[6]	17	18
Carson[7]	22	63
Herzel[8]	48	68
Hagen[9]	30	60
Hirschel[10]	65	54
Körte[11]	27 first 48 hrs.	18
	30 third day	36
Arnsperger[12]	33	51
Biondi[13]	13	80
Bode[14]	30	33
Lieblin[15]	71	71
Blake[16]	..	..
Heidenhan[17]	42	55
Hotchkiss[18]	28	17

The exudate in our cases varied from thin turbid serum to thick fetid pus. Perforation or gangrene of the appendix was present in 23 and absent in 4. In 17 cases saline irrigation was employed with 10 recoveries and 7 deaths. In 12 no irrigation was used with 8 recoveries and 4 deaths, showing that equally good results are obtained by both methods. Glass drainage tubes were used in 12 cases with 8 recoveries and 4 deaths, Mikulicz gauze in 14 cases with 8 recoveries and 6 deaths. In 4 cases a cigarette drain was used with 4 recoveries. In two cases no drainage was employed and both of these recovered. This latter method is much used in the Roosevelt Hospital, New York, by Blake and others. After irrigating the peritoneal cavity thoroughly they sew up the parietal wound almost completely, leaving a drain at the lower angle, which extends to but not through the peritoneum. Their results have been very satisfactory.

In all of our cases operated during the past eight years, either the Fowler position or elevation of the bed was employed. The after-treatment consisted either in the use of continuous saline solution given per rectum or enema of salt solution; coffee or whisky given every four hours. Very little was given by mouth for the first 72 hours and, as a rule, no cathartics were administered. In 21 cases the incision was mentioned in the histories. In 4 it was a median and 17 lateral. Of the 4 median 2 died and of the lateral 10 died. The best results are obtained by removing the appendix through an incision (known as the modified Battle or Kammerer) along the outer boarder of the right rectus muscle and inserting the drain toward the pelvis.

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6. Lancet, Aug. 17, 1907.
7. British Medical Journal, Nov. 10, 1906.
8. Pathologie der Appendicitis, 1906.
9. Beiträge zur Klinischen Chirurgie, vol. xlviii.
10. Beiträge zur Klinischen Chirurgie, vol. lvi.
11. Archiv. für Klinische Chirurgie, vol. lxxvii.
12. Deutsche Medizinische Wochenschrift, No. 3, 1905.
13. Policlinico No. 2, 1906.
14. Beiträge zur Klinischen Chirurgie, vol. xlvi.
15. Prager Med. Woch., July, 1906.
16. Annals of Surgery, vol. xliv.
17. Mitthellungen aus den Grenzgebieten, vol. xviii.

If the temperature does not fall, or if it recurs, one should immediately suspect the presence of an encapsulation of some of the pus between coils of intestines or the occurrence of a subphrenic abscess. As to the former, if left alone, the majority of these will rupture toward the drain and the pus escape. In some cases, however, it will be necessary to locate the abscess by the localized tenderness, rigidity and dullness and make an incision down upon such focus. At times examination per rectum or vaginam will elicit bulging and the secondary abscess can be opened through these.

In advanced cases with marked septic paralysis of the gut and in those patients who continue to vomit after operation, enterostomy is often indicated and will prove to be a life-saving measure. The artificial anus should, if possible, be made above the paralyzed gut. The urine should be carefully watched for evidences of atoxic nephritis. There is no question that if these cases are brought to the surgeon during the 24 to 72 hours the majority can be saved.

DISCUSSION.

Dr. A. P. Heineck, Chicago:—Dr. Eisendrath has spoken about the treatment of generalized peritonitis secondary to appendicitis. The subject is one of great practical importance. It is very essential from the diagnostic and therapeutic standpoint that a clear distinction be made between circumscribed suppurative peritonitis and diffuse suppurative peritonitis. Though either may complicate an attack of appendicitis, though the latter may be secondary to the former, circumscribed suppurative peritonitis and diffuse suppurative peritonitis are two different pathological entities. Statistics, to some extent, have been vitiated, because cases of the former successfully treated have been reported as cases of diffuse peritonitis which have recovered. In acute circumscribed suppurative peritonitis, we have a pus collection which may be large, which may be small, but which is always walled off from the general peritoneal cavity by a more or less firm fibrinous-plastic exudate. Upon evacuation, spontaneous or operative, of this pus and prevention of its re-accumulation, recovery very frequently ensues. In diffuse suppurative peritonitis we have vast surface absorbing bacteria and toxins. This absorption, too frequently, determines an overwhelming, a fatal intoxication of our patient. Diffuse suppurative peritonitis is a condition which we have not yet learned to control. It has an appalling mortality. In the presence of diffuse suppurative peritonitis, with our present therapeutical resources, we are usually powerless. There is one thing, however, which we can do. And that is to limit the number of cases of diffuse suppurative peritonitis. How? By teaching:

1. That appendicitis is essentially a surgical condition and that each and every case of this affection calls for early surgical intervention. We should not yield to the entreaties of patients suffering from appendicitis to make use of non-operative forms of treatment. To yield to such requests is to invite disaster.

2. That the medical treatment of this condition is fallacious, is unscientific. Each and every attack of appendicitis non-operatively treated predisposes to subsequent attacks until complete obliteration of the entire appendiceal canal has been effected. It is medical treatment of appendicitis that is responsible for the occurrence of diffuse suppurative peritonitis consequent to appendicitis.

3. That it is far easier, far more productive of good, to learn how to operate successfully in cases of appendicitis than to become conversant with the various non-operative treatments that have been proposed for this condition. Much as I value the "starvation treatment" in cases of peritonitis, I have to state emphatically that, as a method of treatment for appendicitis, it is far inferior in value to appendectomy.

The mortality from this condition (diffuse suppurative peritonitis) is high. A number of eminent clinicians tell us that they have treated a large number of cases of suppurative peritonitis according to a certain method, with little or no mortality. The only thing I can say in regard to that is that those men have been exceptionally fortunate. We have employed at the Cook County Hospital a method elaborated by Dr. J. B. Murphy. It has given us less disastrous results than any of the other methods employed. The essentials of the method are: 1. Absolutely no food, liquid or solid, per mouth. 2. Elimination of all time-consuming procedures at time of operation. 3. After operation, employment of Fowler's position. 4. Drainage by tube of the lowest portion of the pelvis through a suprapubic opening and also free drainage through the operative incision. 5. Absorption of large quantities of water through the rectum so as to cause an increased elimination of urine and toxins; so as to convert the peritoneum into a secreting and not an absorbing surface.

We are satisfied that the irrigation with normal salt solution of the peritoneal cavity in cases of diffuse suppurative peritonitis is fallacious. It is harmful. It disseminates the infection instead of circumscribing it. We have obtained results in cases of diffuse peritonitis secondary to appendicitis by making an incision and removing the appendix, if it be easily accessible, and not having recourse to such a traumatizing procedure as the wiping or washing of the intestines with normal salt solution.

Another thing we must impress upon the practitioner is that catharsis is not a panacea for appendicitis. To a patient who has an acute appendicitis, I would say, never give cathartics; operate. I am satisfied that this is a safe teaching. I had last week two cases of appendicitis complicated by diffuse peritonitis, in each of which the patients had been actively purged. This excessive peristalsis does not give the inflammation of the appendix any chance to resolve; it lessens the tendency to the formation of protective adhesions and increases the liability to spread of the infection to the general peritoneal cavity.

Dr. Edward H. Ochsner, Chicago:—The difficulty about surgical statistics is that no two surgeons make exactly the same definitions nor follow exactly the same rules in observing their cases, consequently surgical statistics compiled by different men are of very little comparative value. While the definition given by Dr. Eisendrath is quite generally accepted, it leaves so much leeway for the personal equation that the objections cited against surgical statistics in general hold in this case also. No two surgeons seeing the same cases of suppurative appendicitis will uniformly agree in their opinion as to whether certain cases should be called general suppurative peritonitis or localized peritonitis. In order to minimize this difficulty we have for the past nine years classified our cases of appendicitis in the following manner: (a) Acute appendicitis with general peritonitis; (b) acute appendicitis with perforation or gangrene of the appendix; (c) acute appendicitis without perforation or peritonitis; and (d) chronic appendicitis. This classification has the advantage of separating the cases into two great groups, a and b, consisting of those cases in which the infection has gone beyond the tissue of the appendix, and c and d, comprising those in which the infection has remained within the appendix proper. It is usually quite easy to determine to which of these two great groups the individual case belongs and after all the essential point is whether the infection has gone beyond the tissues of the appendix or not.

In the past nine years we have had nearly 1,000 cases belonging to the first group and over 2,000 cases belonging to the second. In the first group we have placed all cases of appendicitis in which at the operation or at the postmortem it was found that the infection had gone beyond the tissues of the appendix, and this group included many late and moribund cases of appendicitis. In spite of this fact our mortality in group one for the last nine years has not exceeded 11 per cent.

I quote these statistics to emphasize the benefit of the treatment recommended by my brother some nine years ago, with which you are all familiar,

which consists of absolute starvation and rectal alimentation. I believe that by this method many of the cases can still be saved which would succumb to operation if operated during the period of greatest danger, say from the third to the sixth day after rupture has taken place. If these patients are put in the Fowler position, if the regimen above outlined is properly followed, 89 per cent. of all cases of group one can be saved, even though the infection has gone beyond the tissues of the appendix.

Dr. Eisendrath (closing the discussion):—I simply want to endorse exactly what Dr. Ochsner has said, and that is the point which I brought out in my paper, namely, we have given up operating on those cases where the patients come in to us on the fourth or sixth day with a pulse of 160, and look thoroughly septic. We simply treat them by the Ochsner starvation method at the present time and are getting the same proportion of recoveries as they are getting now, where we formerly lost every one of them. The Ochsner treatment is a distinct advance in these cases.

The 5 per cent. mortality spoken of by Dr. Ochsner seems small unless we have further statistics from him. He makes up his statistics from cases of localized abscess formation and general peritonitis. Unless we can have their percentage of mortality in the abscess formation cases by itself, and the secondary percentage of mortality in the cases of general peritonitis, the two can hardly be compared.

As regards the question of general peritonitis being present, if there is only a lot of serum, I can say the same as Dr. Ochsner does, that we do not call them cases of general peritonitis. The fluid must be purulent to call these cases general peritonitis and accompanied by microscopic changes in the peritoneum.

PUBLIC DUTIES OF PHYSICIANS.*

HENRY BIXBY HEMENWAY, A.M., M.D.
EVANSTON, ILL.

In conferring a collegiate degree it is customary for the representative of the school to say to the candidate something like the following: "I admit you to the rank of" (naming the degree) "and give to you all the rights, honors, privileges and duties pertaining thereto." Neither the president of the institution nor the college itself has any inherent right to use such expressions. They are delegated to do so by the state, through the charter, and the degree comes from them as the representatives of the commonwealth. The faculties and trustees, therefore, of medical schools have no moral right to use their positions for personal gain, but it is their duty to see that all receiving the degree of Doctor of Medicine are fully qualified in accordance with the highest standards of the profession.

Since the state confers the title, and with it the duties and privileges, every recipient of the degree should recognize the public duties peculiar to his rank. It is not a public duty to respond to every call for his professional services. This has been determined in the courts. The broad laws of humanity may sometimes require the gratuitous services of a physician, but, generally speaking, the community has no right to use the time and skill of a physician without adequate compensation. This

*Read at a meeting of the Chicago Medical Society, Nov. 11, 1908.

is particularly true of such service as requires special skill and training, and from which the physician receives no other compensation. Making the statement more clear, it is doubtful if it is for the good of any one to make services of physicians and surgeons absolutely free in hospitals and dispensaries. It often happens that the attending physicians in hospitals receive no money compensation for the treatment of patients, who would be glad to make arrangements for the payment of a well-qualified physician *of their choice,* if he were permitted to attend them. The medical profession is thus deprived of a portion of its legitimate income. Still, the experience gained in treating one case aids in another, and is a degree of compensation. If, however, this hospital work takes a large share of the time of the practitioner, it would seem that he should be paid in proportion thereto by the hospital if not by the individual patient. Imagine any other class of men giving their professional services regularly for experience only, except during their apprenticeship.

Is there any good reason why a professor of language or mathematics should be paid a salary, and a professor of medicine should be assessed for the privilege of teaching? Is not that fact a demonstration that medical college profesorships are largely ethical advertisements? Would not the standard of teaching be raised if the chairs in medical schools were endowed?

Further, when the work requires a special education, occupies the full time, and gives little experience that is valuable financially in private life, members of the medical profession should receive payment at least on a par with attorneys and judges, for example, and the united profession should make this demand.

Every practitioner of medicine is, to a degree, a public official. Chapter 78, Section 4, of the Revised Statutes formerly read: "The following persons shall be exempt from serving as jurors, to-wit: the governor, lieutenant governor, secretary of state, auditor of public accounts, treasurer, superintendent of public instruction, attorney general, members of the general assembly during their term of office, all judges of courts, all clerks of courts, sheriffs, coroners, postmasters, mail carriers, practicing attorneys, all officers of the United States, officiating ministers of the gospel, school teachers during the terms of school, practicing physicians, constant ferrymen, mayors of cities, policemen and active members of the fire department." By the act of 1905 there were added to the list "registered pharmacists and assistant pharmacists, embalmers, undertakers and funeral directors actively engaged in their business, and all persons actively employed upon the editorial or mechanical staffs and departments of any newspaper of general circulation, printed and published in this state." It will be noticed that of the original list the only ones about whose standing as public officials there could be any possible question are ministers, physicians and ferrymen. Our laws are, to a great degree, transcripts from those of England. There, and in other countries, the clergy form an integral part of the legislative and judicial departments of the government. In this country their official relationship is shown by the fact that when they perform the marriage ceremony

it is as binding in law as though performed by the chief justice, and only by court action can the marriage be annulled. Ferrymen were formerly often appointed or elected, and even when the duties were voluntarily assumed they were commonly considered on the same plane with postmasters. The exemption of physicians, therefore, would hardly be excusable in this act unless they were *quasi* public officers.

The statutes fully and properly define who shall be considered practitioners of medicine by the medical practice act, and other statutes mention certain public duties. Chapter 126a makes it a duty of every physician attending a woman in confinement to report the facts of the birth to the county clerk. In assuming the charge of a case, the physician enters into a contract to give the reasonable and ordinary care of the patient; and McNevins vs. Lowe, 40 Ill., 209, shows that the fact that the service is gratuitous does not lower the standard of the care requisite. The physician present at the birth of a child is the most important witness thereof, and, since his testimony may not be called for until after the time of his probable death, the law very properly demands of him that his testimony be recorded in writing, and immediately. This testimony may be needed by the child, or others, to prove legitimacy, heirship, age, citizenship, or title to property. Americans are sometimes greatly inconvenienced because a copy of the birth certificate is required in many foreign countries before a legal marriage can be performed. A physician engaged to attend a case of confinement, therefore, has not completed his care, nor dealt justly with his patron, until he has made this record.

Chapter 126a further requires that physicians in attendance upon a person shall make legal report of the death of a patient. Accurate vital statistics must be the basis of all real sanitary progress. Here, again, the testimony of physicians is essential, and a practitioner who habitually fails to comply with the spirit of these laws should be deprived of his license. It has been remarked that if a valuable horse, or cow, or hog, or dog either is born or dies the fact is immediately recorded. Not to be able to show records of pedigree is *prima facie* evidence of low breeding. A physician who neglects his reports of births and deaths shows thereby that he regards his patron as only on a par with common swine.

State and municipal regulations demand that practitioners promptly report to the health department cases of contagious disease coming within their notice, including transients. This is necessary that the department may take steps for restricting the disease. In some states this report must also give the probable source of the contagion. This notice should also include such general items of information as shall enable the department to work efficiently, without loss of time. For example, if a number of reports of typhoid fever are received on a given day, perhaps widely separated, much time may be saved in the search for the origin of the disease if each report mentions the source of milk and water supply, school attended, etc.

It has sometimes been affirmed by practitioners that they should not be compelled to report contagious diseases, especially without extra pay, and that it is the duty of the department to find the cases through its inspectors. Such an idea is contrary to the public weal. It would require an undue tax upon the people. Every member of a community owes certain duties to the others. It is the manifest duty of one who discovers a fire to immediately give the alarm. Greater responsibility rests upon him who discovers a case of contagious disease, because its action is more insidious and requires special training for its recognition. Neglect to report is, in effect, concealing the case, and is a moral crime, even if the law does not compel reporting it. It is quite possible that if through the negligence of a physician to report a case of contagious disease seen by him in the person of A an innocent person, B, becoming exposed, contracts the disease and dies, the physician might be held civilly and criminally liable for the death of B. It, therefore, behooves practitioners to be on the safe side and promptly report even suspicious cases, if they are imperfectly isolated.

Until the department can act in the case, it is the manifest duty of a practitioner to see that the patient is isolated, and the spread of contagion prevented. The health department should, and does, determine certain general rules governing these cases. School and other authorities should only recognize the permit of the health department, after exclusion on account of contagious disease. The private practitioner's certificate should only go to the health department. Acceptance of such certificates by school authorities takes from the health department an efficient means of controlling disease. The same is true relative to disinfection, and the certificates of vaccination. Unfortunately private certificates are not always truthful, and the health department is better qualified to detect errors. There should be heavy penalties for making false certificates, and repeated conviction should be sufficient cause for canceling a physician's license. The private practitioner has no right to expect that his certificate will be taken as an *order* for disinfection, or return to school. Disinfection as ordinarily practiced is worse than useless. It gives a false sense of security. Since the object of disinfection is to prevent the spread of disease, it should always be performed, or supervised, by the health department.

What diseases should be reported? In the light of modern investigation, it would seem that the ordinary lists should be revised. If yellow fever is included, malarial fever should be also. Tuberculosis is now included in the lists of some jurisdictions, and it should be in all. Gonorrhea has always been considered a strictly private, or secret, disease. We are told that it causes untold suffering to innocent persons. Why should any one be permitted to spread this disease with impunity? Why should the criminal be shielded by secrecy? Why should not gonorrhea and syphilis find their places in the legal list, rather than that rare disease of typhus fever, which is almost extinct?

There is another duty which physicians owe to the community. It is incumbent upon every citizen to aid public officials in the discharge of their duties, and it is to be peculiarly expected that physicians shall

support the health departments, local, state and national. This they may do by helping to create a popular appreciation of the importance of the work, and aiding in securing efficient legislation. Public sanitation can not advance far beyond popular education. Though sanitary science has attracted attention since the time of Moses, it is still in its infancy. The people know little about it, but they imagine that there is little more to be learned. Public interest should be inspired.

This is a commercial age, and a commercial nation. It spends money freely on commercial investigations, but it neglects human life and health. It has been willing to invest thousands of dollars to solve the problem of making a hen lay more eggs, or to discover the bacillus which will produce the best flavored butter. At the same time it has permitted the needless murder of hundreds of thousands of its citizens by the *Bacillus typhosus.*

Confining our attention to our own state: What original investigation has the State Board of Health undertaken to advance the science of sanitation? In what field of sanitary knowledge has the State Board done valuable work? When the troops were recently assembled in Springfield some regiments were dependent upon wells for their water supply? Was the water safe? No one knew. Samples were collected and taken to the Department of Health, and Col. Marquis was informed that they would be sent to Urbana for analysis, as there were no facilities in Springfield for such work. It must be recognized that such conditions are unsatisfactory and unscientific. Some germs would perhaps die before the laboratory was reached, while other species would very greatly multiply. To be of value the bacteriological examination of water should be made without delay. For a similar reason the recently published examination of municipal water supplies is of little sanitary value. Few waters were examined bacteriologically, and such examinations as are recorded fail to give most important data, such as the time between the collection and examination of the water.

England has exterminated rabies. Illinois permits the disease to spread and treats the patients.

The last published report of the state auditor is for the years ending Sept. 30, 1905, and Sept. 30, 1906. In Statement 3, under the heading University of Illinois, we find the following expenditures (p. 145):

Agricultural College Experiments	$112,500.00
Experiments in stock feed	56,250.00
Experiments in corn	28,750.00
Experiments in soil	56,250.00
Orchard treatment	28,750.00
Dairy investigations	33,750.00
Total spent in these investigations	$316,250.00

In the same time the State Board of Agriculture (p. 164) spent $96,840, and the Board of Live Stock Commissioners (p. 163) $76,838.80; appropriation for the Association of Beekeepers (p. 613), $2,000. The State Entomologist spent $49,090.31, in addition to his sal-

ary for two years, or $4,000. In the same time the expenditures for the State Board of Health were only $79,105.56, including the salaries of all officers and employés, office and special expenses, according to page 136 of the auditor's report. (Apparently this amount does not include the expense of the board as license examiners, and I infer that the auditor does not examine these books.) The auditor's report gives other interesting comparison for those same years:

The Fish Commissioners spent	$40,736.16
Besides Warden's salaries	8,562.50
And expenses	1,432.83
From the State Game Protection Fund there was spent	281,755.60
To protect game in the state. Total	$332,487.09

Two men from the humbler walks of life got up early one morning to catch some fish for dinner. To get bait they dragged a net a little way along the shore of broad Lake Michigan. That act cost them $27, for they were seen by a fish warden. Aside from the preservation of the species, the protection of fish from snares and game from guns is for the luxury of the few. The protection of the life and health of humanity is a necessity for all. Reduce sickness and you reduce poverty with all its attendant ills. The Illinois Commissioners of the Louisiana Purchase Exposition gave $2,073.48 as special awards on swine, but I find no special award on exhibits pertaining to sanitation. Are the lives and health of American citizens of so slight value in comparison with swine, or bees, or the bacteria of sour milk?

Turning now to the report of the State Board of Health for the year ending Sept. 30, 1906, we find that $2,659.59 was spent in yellow fever inspection service, but, unless it is included in "investigations of contagious and infectious diseases and sanitary conditions," there is no record of work done to prevent typhoid and malarial fevers, either of which is far more dangerous to the citizens of the state than yellow fever. Even according to the incomplete record of the State Board, in the year 1907 there were in Illinois 1,119 deaths from typhoid and 120 from malaria, but there have been no deaths from yellow fever in this state for many years.

How long must malaria reign before a thorough crusade is made upon the Anopheles mosquito? How long before the state will begin a systematic search for the breeding places of the typhoid bacillus? Must the land be scourged by a disease like the bubonic plague before it begins to exterminate the rats? Especially when the losses occasioned by these rodents amount to hundreds of thousands, if not millions, of dollars annually? Is it not worth trying to exterminate also the flies which spread infection?

Is it not time that the profession urge more liberal appropriations for the State Department of Health, and demand work done in harmony with the dignity of the state and the importance of the subject? Is not every physician in the state partially responsible for the present conditions? Have we not been negligent and sleeping?

Symposium.

THE CLINICAL TYPES OF TOXEMIA OF PREGNANCY.*

JOHN G. CAMPBELL, M.D.,
CHICAGO.

About fifteen years after Richard Bright, in 1827, described the phenomena of nephritis, Rayer announced the association of albuminuria with the convulsions which had for centuries been seen frequently to complicate the pregnant state. With this in mind it soon became evident that there existed a marked similarity between these convulsions of the gravida and those of true uremia. In fact, so nearly identical were the clinical phenomena of these two conditions that the convulsions occurring in the pregnant woman were declared by Frerichs to be simply uremic. Recognition, however, of this relationship marked the first step in the development of the modern rational conception of the pathogenesis of the symptom-complex which we to-day know under the name of the toxemia of pregnancy.

The next important step was taken when, in 1887, Bouchard advanced the theory of autointoxication and tried to prove the eclamptic condition to be due to impaired action of various excretory organs. This opened up a new field of investigation, which has resulted in a vast amount of research work, the deductions from which, while not entirely consistent, have in the main tended toward our present view. This, in the words of Ewing, classes the "toxemia of pregnancy as a functional disturbance of the liver, usually but not necessarily associated with severe anatomical lesions of this organ, and secondarily with functional disturbance and organic lesions of the kidneys and other organs." The nature of this disturbance is a failure of the liver to render innocuous certain poisonous products of metabolism during their passage through it. "Proteid derivations normally combined by the liver into urea circulate freely in the blood in poisonous form and are only to a small extent excreted by the kidneys. The exact identity of all these toxic bodies has not been established," but continental pathologists have recently found large amounts of leucin, tyrosin and lysin in the blood of women showing clinical signs of severe toxemias. Probably numerous factors are at play in the production of the metabolic disturbance, such as perhaps the retained principles of the menstrual flow, the increased toxicity of the blood from the increasing waste products of the growing fetus, or some change in the maternal organism due to an absence of the normal gestational enlargement of the thyroid gland, etc. Whatever may ultimately be established as the exact etiologic factors in this complex condition, it is much more in harmony with our modern conception

* Symposium on Toxemia of Pregnancy, read at Englewood Branch Chicago Medical Society.

of the pathology of the toxemia of pregnancy to believe this result will be worked out in the laboratory of the physiologic chemist rather than that of the pathologist.

Whenever I attempted, in the preparation of this paper, to classify the clinical types of the toxemia of pregnancy on a pathologic basis, which I believe to be the only rational basis, I failed signally without constant allusion to and the ultimate interlacing of both the renal manifestation of the disease and also that capstone of clinical signs — eclampsia. So, in deference to the gentlemen who follow me, I have decided to subdivide the subject on a symptomatic basis, and in accordance with this will consider a few of the chief types, one of which I would mention as the renal type with eclampsia occurring as a symptom of prime importance in this type, any other type or combination of types. I trust Dr. Bosler and Dr. Hagens will pardon this mention in my classification of the field they are to discuss.

HEPATIC TYPE.

Our knowledge at the present time will not allow us to go farther than to state that the etiologic factor in the toxemia of pregnancy is a disturbance of the liver function. This may depend in the mild toxemias upon minimal cell change, while in acute yellow atrophy there is practically a complete destruction of the liver parenchyma due to a granular and fatty degeneration. Herz believes there are cases showing as profound toxemic symptoms as those based upon severe organic lesions which present no anatomical change. These he ascribes to an acute functional paralysis of the liver, and they are usually extremely virulent in character. Technically there is only one type of the toxemia of pregnancy and that is the *hepatic,* with all the other types, due to the prominence of symptoms from some particular organ which has especially felt the influence of the toxins circulating in the blood.

Under this head I shall speak only of acute yellow atrophy. When found in the pregnant woman this condition is considered at the present time by most clinicians simply to be a terminal stage of the toxemia of pregnancy. The pathologic anatomy of the liver in acute yellow atrophy differs only in degree from that found in other stages of pregnancy toxemias with varying clinical manifestations, hence we are led to believe that the morbid process in acute yellow atrophy is of frequent occurrence, which in many cases is followed by complete recovery. Sixty-five per cent. of all cases occur in women, and of these 50 per cent. are in the latter half of pregnancy.

The clinical entity of acute yellow atrophy is usually preceded by a prodromal stage lasting from one to three weeks and characterized by gastric disturbances, hepatic tenderness, a mild but distinct icterus and light-colored stools. The second or active stage is apt to ensue suddenly with profound prostration, almost invariably vomiting and early involvement of the cerebrum as shown by restlessness, insomnia, delirium and convulsions.

The liver becomes more tender and even painful and shrinks rapidly. The area of liver dulness may be entirely lost, due to the shrunken liver dropping away from the costal wall. In the event of a very rapid death this sign may not be present. Icterus increases and there is a constipated bowel with pale stools. The spleen enlarges in 66 per cent., although Edwards states this does not occur in cases accompanied by profuse hemorrhages or active diarrhea. The urine is diminished or suppressed. There are found in it bile pigment, albumen, casts, leucin, tyrosin, and diminished urea. The pulse becomes rapid and the temperature subnormal. Dyspnea is a constant symptom. Hemorrhages occur from the uterus and stomach and into the skin, the serous and mucous surfaces. Convulsions are present in 33 per cent. The vomiting becomes cerebral in character, the ejecta consisting of mucus, bile and blood. The tragedy ends in 85 per cent. of cases in coma and death in from two to seven days.

GASTRIC TYPE.

Time was when the milder forms of vomiting were considered among the physiologic phenomena of a normally developing pregnancy. When the vomiting assumed a more severe nature it was ascribed to reflex irritations from pelvic conditions either normal or pathologic. The pathologic anatomy of the liver, however, in pernicious vomiting is identical with that of acute yellow atrophy and the typical eclampsic state. Ewing sees no more reason for separating etiologically the mild and pernicious forms of vomiting than the mild and fatal forms of eclampsia, and goes so far as to assert his belief that all forms of vomiting not accounted for by previously existing gastrointestinal irritations are manifestations of varying degrees of toxemia. Surely it is the practical experience of all of us doing obstetric work that the woman announcing at the close of a pregnancy that she "never missed a meal and never felt better in her life" is usually the woman who appears in the bloom of health, whose nutrition has improved throughout and who has been free from headaches, insomnia, mental perversions and the other petty ills of pregnancy. The converse of this picture is quite as universally seen.

Edgar still recognizes a form of hyperemesis, persistent to the eighth month, not becoming pernicious in character and offering no clinical signs in these later months of toxemia. He is not willing to pronounce definitely on the nature of this clinical type, but suggests it may be due to a transitory, benign toxemia which the gravida has suffered from early in pregnancy, but from which she has fully recovered save the persistence of the exalted reflex excitability which underlies the tendency to vomit. He seems to believe with Ewing that those cases of hyperemesis which have for so long been classed as reflex in origin are instead cases of toxemia, this toxemic state producing a hypersensibility of the reflex nervous system and thus rendering it susceptible to local pelvic irritation, to which it otherwise would not have reacted.

Disturbances of the digestive tract are observed in a large percentage of all pregnant women. Slight morning nausea with or without vomit-

ing occurs in about 50 per cent., beginning about the end of the first month and reaching its maximum in the third month. This usually appears immediately on rising. There may be simply nausea and retching or actual vomiting of mucus, bile and gastric juice. The woman then eats breakfast and maintains a quiescent digestive tract throughout the day. At this point the process may become stationary. Many cases progress to a point sufficient to cause vomiting during or after one or more meals of the day. Another meal may be taken at once and usually retained so that nutrition is but little, if any, interfered with. Nausea and vomiting seldom occur alone in these cases, but they are accompanied by headache, dizziness, various mental symptoms, alterations in character, taste, perversions, constipation, lassitude, chloasma, pruritis, etc. These can only be considered as due to an intoxication of which the nausea and vomiting is only a still further manifestation. Relatively few cases presenting only this train of symptoms come to autopsy, but those that have here shown a morbid process in the liver differing only in degree from that found in pernicious vomiting which latter, let me repeat, is identical with that found in acute yellow atrophy and eclampsia. Vomiting of the severity mentioned usually ceases during the fourth month or about the time of quickening. This cessation is sometimes for a time followed by diarrhea, which still further emphasizes the autotoxic side of the matter and lends color to the assertion by certain observers that the vomiting is an effort of Nature toward a cure of the intoxication by rejecting all or a portion of the food and thus preventing the entrance into the system of an enormous amount of the products of incomplete action of the liver.

The pernicious type of vomiting is an advanced stage of that already mentioned. In past years this with the other types of vomiting has been largely attributed to a neuropathic basis, but recent clinicians have been so impressed with the marked similarity between the terminal stage of this affection and a similar stage of the fulminant type of toxemia of pregnancy that they began to look about for a common etiological factor. This the pathologic laboratory has done much to clear up by demonstrating to a certainty that, as I have stated several times, the morbid process in the liver in all these affections is identical.

The symptomatology is usually divided into three groups. The initial symptoms are nausea, repugnance for the common articles of food and strong abnormal cravings. Vomiting soon supervenes and is far more vicious than other forms of gestational emesis. It may occur fifteen to twenty-five times per day, mucus, bile and even blood being ejected. The nutrition of the woman is rapidly involved and emaciation, constipation and weakness occur. In the second stage we find a quick, rapid, small pulse with a dry hot skin, although the temperature is but little, if any, elevated. The gastric symptoms persist and loss of weight is progressive and rapid. The urine shows albumen, casts, leucin, tyrosin and other marks of faulty metabolism. This condition may persist for weeks.

The third stage is a terminal one, recovery rarely occurring after its train of symptoms have ensued. The vomiting is very greatly lessened or may, indeed, stop. The pulse, however, remains small and rapid and

weakness is progressive. Thirst is extreme, the extremities are cold and the abdomen is collapsed. Death usually occurs in a few days with muscular twitchings, somnolence, coma and sometimes jaundice.

CEREBROSPINAL TYPE.

The third symptomatic type I will term the cerebrospinal, and under this head I wish to mention a few of the more intrinsic symptoms emanating from the nervous system and due to the toxemia of pregnancy. Here perhaps should be classed the so-called fulminant type of toxemia, covering those cases of rather sudden death not accounted for by other and positive causes. Pregnancy, *per se*, as a cause of death is extremely rare. The pathology of these fulminant cases, however, has been little investigated, death often occurring before a diagnosis is made and always before any extended clinical study is possible. A most virulent intoxication is indicated by the symptoms of sudden and profound prostration, cardiac failure, anomalies of temperature, and rapid implication of the cerebral cortex which leads to an early and fatal coma. In the few cases that have reached careful autopsy the same hydropic, granular and fatty degeneration of the liver is found as the essential lesion.

The literature makes scant reference to toxemia as a cause of gestational insanity. Peterson states that 1 per cent. of all insanity in women has its inception at the epoch of reproduction. He also believes that "there are many cases of parturitional psychoses in which the insanity is not so much due to the stress of labor as to possible autointoxications from poisonous substances absorbed from the katabolic changes incident to involution of the enlarged uterus." If this be true, it would be quite as rational to assume that a gestational insanity might be caused by the far more virulent toxins of altered metabolism circulating in the blood as a result of the toxemia of pregnancy. Insomnia, neuralgia, neuritis and pruritis I would simply mention as distinct entities frequently due to toxemia and unattended by other marked clinical findings.

In the preparation of this paper I wish to acknowledge my indebtedness to Stone, Ewing and Edgar, who by their monographs and the textbook of the last have been of great aid. These men, of all other modern writers with whom I am familiar, have been the first to consider the toxemia of pregnancy as an acute disease with a well-established pathology and a definite symptomatology.

7143 Princeton Ave.

ECLAMPSIA.*

G. J. Hagans, M.D.
CHICAGO.

DEFINITION.

Eclampsia is the occurrence of convulsions during pregnancy, labor or the puerperium, occurring at longer or shorter intervals, clonic and tonic in character, followed by unconsciousness and coma. It occurs about once in 500 cases of pregnancy and labor.

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*Read before the Englewood Branch of the Chicago Medical Society.

CLINICAL HISTORY.

Most frequent in primipera, about 70 to 80 per cent. Occurs usually during the latter half of pregnancy and most frequently toward the end of pregnancy; though cases have been observed as early as in the third month (Zweifel). In point of time convulsions occur (a) antepartum, (b) intrapartum, and (c) postpartum, and are most frequent and serious in the order as mentioned, excepting in 9 per cent. to 16 per cent. of the cases the convulsions are always accompanied by some functional disease of the kidneys manifested in the urine, with insufficient elimination and retention in the blood of toxic substances. The eclampsia seizures are usually ushered in by a prodromata of symptoms, but sometimes come on without any warning, and may occur in sleep.

The pre-eclamptic symptoms are physical and general mental lassitude, anorexia and sometimes nausea and vomiting, headache through temples, boring pains in the epigastrium, disturbances of vision (amblyopia, amaurosis), ringing in the ears, edema of the extremities and sometimes of the entire body, progressive diminution of the quantity of urine and urea output, with albumen and casts. These pre-eclamptic symptoms may present themselves one by one or a number or all may be present at one time when a case comes first under observation.

The convulsion usually begins with twitching of the muscles of the eyes and face, twisting the face to one side, then to arms, legs and the entire body is thrown into a tonic rigidity, eyes stare, fixed, and pupils at first contracted, later become widely dilated, soon cyanosis sets in from respiratory muscle spasm and respiration ceases. Frothing at the mouth, often colored with blood from injury to the tongue caught between the teeth, loss of sensation and consciousness are complete. The attack may last from one-half to two minutes. This is followed by stertorous breathing and coma for one-half hour or longer. Convulsions may recur at intervals of one-half hour or longer, sometimes but one in twenty-four hours, sometimes only one and this may be followed by recovery or prove fatal.

PATHOLOGY AND ETIOLOGY.

Eclampsia is due to the circulation in the blood of some toxic substances yet unidentified which causes thrombosis of the smaller vessels of the internal viscera of the body, most characteristic in the liver, followed by degeneration and necrotic processes. Lesions are almost constant in the liver and are found in the kidneys, myocardium, brain and lungs. These degenerative changes so interfere with the metabolic function of these organs as to establish a cycle of toxemia which sooner or later reaches the limit of toleration by that particular nervous system and a convulsion results. Fetal metabolism must play an important part in increasing the work of the maternal organism in addition to the elimination of its excretory products, since clinically we see that when the ovum is removed or the circulation between the mother and ovum is interrupted, as in the case of death of the fetus, the convulsions cease.

Though albumen is absent in 9 per cent. to 10 per cent. of the cases, at autopsy most cases show renal lesions of an acute nephritis with marked necrosis of renal epithelium, probably secondary changes from the underlying cause. The unstable condition of the nervous system in most cases of pregnancy make it unusually susceptible to toxic irritation. Some constitutions seem to be particularly susceptible to eclampsia, yet it is doubtful whether individuals from neurotic families are more liable to true eclampsia than others, except in so far as they would yield sooner to a lesser degree of toxicity in the blood than others. Similar pathological changes are found in the internal viscera of the infant as in the mother in a case of eclampsia.

DIAGNOSIS.

The diagnosis of eclampsia is not difficult when one has had the opportunity of watching the patient during the latter half of pregnancy. In fact they seldom need to come to the eclamptic stage, if we can give the case proper treatment and care, but when it does occur it can quickly be recognized in a case under observation. It must be differentiated from (1) epilepsy by the history of the case, urinary findings, absence of edema; (2) apoplexy, (a) which seldom occurs in pregnancy, (b) no edema, (c) coma follows soon without spasm; (3) hysteria, usually conscious, no edema, no coma, usually plenty of urine, absence of pathological findings; (4) uremia, have sudden suppression of urine, marked dyspnea manifested early in uremia. Clinical observation at the bedside through an eclamptic attack is of much value to aid us in arriving at a conclusion.

PROGNOSIS.

The prognosis of the true eclamptic is always serious; least so during the puerperium, and yet a dangerous complication at that time. The maternal mortality is 20 to 30 per cent; fetal mortality 30 to 50 per cent. Mortality of primipara and multipara, 3 to 1; by some it is claimed there is no difference. Death may occur from the edema of the glottis or lungs, apoplexy, general exhaustion and paralysis, probably acute dilatation of the right ventricle of the heart, and aspiration pneumonia. When the pulse remains full and firm, temperature not high, the outlook is favorable; when rapid, weak and thready, and high temperature, outlook unfavorable.

TREATMENT.

After all we can not get away from the fact that whatever the theory advanced as a cause of eclampsia, it is the expression of inadequacy on the part of the organism; that is, the metabolic functions and eliminative processes of the body are unable to cope with the degree of toxicity generated in the system under the circumstances. The treatment of to-day must have reference to the pre-eclamptic stage and that of eclampsia *per se*. The pre-eclamptic or prophylactic treatment is along

dietetic, hygienic, and sometimes medicinal lines. When taken in time with full co-operation on the part of the patient, wonderful results may be accomplished with diet, hygiene and attention to elimination. I believe, too, little attention is often given to physical rest in bed for a longer or shorter period until all symptoms disappear. Prophylactic treatment with the patient in bed attains far better results than when up and about. While a patient will progress unfavorably when up and about, she will with the same treatment do remarkably well when put to bed.

Treatment in the convulsive stage during pregnancy or labor requires prompt removal of the product of conception, in the most conservative manner for the individual case in hand, unless the case does not seem urgent and responds well to other forms of treatment and it is desirable to prolong pregnancy in the interest of the child. In most cases labor pains set in after the convulsions. They become stronger and more rapid, so that with other conditions remaining favorable an expectant plan of treatment is justifiable until the cervix is effaced and os dilated sufficient for an operative delivery with safety. Since these patients are very susceptible to fatal shock, it is desirable to reduce manipulation and violence of all kinds to a minimum. When, however, we meet with a case in repeated eclamptic convulsions that has a right cervix, as is often seen in primipara, the question of the mode of operative procedure presents itself. One of the following becomes necessary: (a) Manual dilatation with the hand or instruments; (b) deep cervical incisions with manual dilatation; (c) dilating with bags; (d) vaginal or abdominal Cesarean section.

Personally I believe this class of cases, when taken early, suffer far less shock and mutilation by vaginal or abdominal Cesarian section with proper surroundings where it can be performed in one-third time or less, and where the double purpose of venesection and hypodermoclysis or transfusion of normal salt solution can be performed while the Cesarian section is in progress. Though the mortality of Cesarean section in eclampsia is high, 33 to 50 per cent., it probably would have been 100 per cent in the same desperate cases had they been allowed to go on with other modes of treatment. After the ovum has been removed, diuresis, diaphoresis, the use of normal salt and even venesection should be performed if the convulsions do not subside after delivery.

MEDICAL TREATMENT FOR THE ECLAMPTIC STAGE.

Aside from what has been mentioned few drugs are of service, morphin and pilocarpin are mentioned to be condemned. Though advocated by some good authorities, chloroform stands first, chloral and bromids in large doses, 30 to 60 grs. per rectum. Extract veratrum viride is strongly advocated by some hypodermically, 10 to 20 drops repeated in 10 minim doses every half-hour till pulse goes down to 60 per minute. Chloroform for anesthetic. Protect tongue. Protect the patient from injury.

CASE REPORTS.

CASE 1.—Patient a large, well developed primipara, 26 years old. Heavy eater, little exercise during the last months of pregnancy. During the last four weeks generalized edema. With prophylactic treatment this all subsided. Urine was negative each time that it was examined except diminished in quantity. Forty-eight hours before labor set in she had one hard convulsion, she was kept in bed till labor set in, four hot air baths in 24 hours, milk diet, and mild diuretics. Difficult slow labor terminated with forceps, no more convulsions; recovery complete. Since then has been confined three times. Normal delivery each time and no recurrence of any toxemic symptoms.

CASE 2.—Primipara, 24 years old, seen first in characteristic convulsions, a few hours after normal labor by a midwife who had gone home. Could not get urine for examination; when first examined no albumen or casts; made a good recovery at that time. Has had three children since, normal and no eclamptic symptoms. She is a very neurotic person, always suffering from headaches due to gastrointestinal toxemia. She had been in spasms for a whole day at a time when not pregnant, became cyanosed and unconscious at times. The last three years has had no attacks. In this neurotic individual with chronic gastrointestinal toxemia and urinary findings always negative it may have been due to the alimentary canal and possibly some liver changes.

CASE 3.—Multipara, unattended by any one, brought to the hospital in convulsions and coma. Small quantity of urine in bladder, loaded with albumen and casts. Did venesection, emptied the uterus, child was dead; patient died a few hours later.

CASE 4.—Primipara in my service at the Mercy Hospital under Dr. Jaggard, came in for pre-eclamptic treatment, which proved inefficient. Labor was induced by rupture of membranes with a steel sound, soon after the first convulsion labor came on, delivered of a premature child. Mother recovered.

CASE 5.—Primipara 30 years old. Generally contracted flat pelvis. Conjugata vera, 7½ cm.; between spines, 24 cm.; between crests, 27 cm.; Baudelocque, 17½. Head did not enter the pelvis, head presentation O. D. P. position. This patient had some edema, diminished urine and urea output, a trace of albumen, but no casts for about three weeks before labor. The head did not descend until about three hours before she was delivered; she had been in comparative hard labor for about eight hours when suddenly she went into convulsions, about one-half hour later a second one. At this time the os was sufficiently dilated to assist with forceps. Before delivery patient was catheterized, secured one ounce of very dark, heavy urine loaded with casts, blood-cells and three-quarters albumen by quantity. The R. O. P. was rotated anteriorly, forceps applied and delivered in a comparatively short time with laceration of the first degree. She made an ordinary recovery, nurses the baby and both are well.

TOXEMIAS OF PREGNANCY, RENAL INSUFFICIENCY.*

ARTHUR G. BOSLER, M.D.

CHICAGO.

In considering the part renal insufficiency plays in the toxemia of pregnancy it is necessary to review very briefly the functions of the kidneys. This function, tersely stated, is to form urine. Sometimes this is spoken of as a secretion, but inasmuch as its constituents pre-exist in

*Read before the Englewood Branch of the Chicago Medical Society.

the blood when that fluid reaches the kidneys, and they remove these substances, urine is really an excretion. The quantity of urine voided by a normal adult in twenty-four hours is about 1,500 c.c., varying, however, within permissible limits from 1,200 to 1,700 c.c., and these limits may be extended with perfect health. It is of interest to note the composition of the twenty-four hours mixed urine of a young man, first, upon "meat diet," which consisted of beef, little salt and water, and, second, upon a "bread diet," consisting of bread, butter and water. This, according to Bunge:

	Meat,Grs.	Bread,Grs.
Urea	67.2	20.3
Creatinin	2.1	0.961
Uric Acid	1.398	9.253
Sulphuric Acid (total)	4.674	1.265
Phosphoric Acid	3.437	1.658
Lime	.328	.339
Magnesia	.294	.139
Potash	3.308	3.314
Soda	3.391	3.923
Chlorin	3.817	4.996

Total amount in 24 hours: Meat, 1672 cc.; bread, 1920 cc.

This is given principally to show the effect of diet upon the formation and elimination of urea and its value in the treatment of the condition under consideration.

On an ordinary mixed diet the urine of a healthy adult amounting to 1,500 cc. in twenty-four hours would contain 1,440 cc. of H_2O and 60 grams of solids, of which 35 grams would be urea. Urea $CO(NH_2)_2$ is the physiologic end-product of proteid metabolism of the body and of the albuminoids of food. It is present in the blood when that fluid reaches the kidney, and the function of this organ, so far as urea is concerned, is simply to eliminate it. Substantial experimental evidence exists to corroborate the statement that urea is formed by the action of the liver cells. Drechsel give the most satisfactory explanation of the number of its formation. He states that proteids undergo hydrolytic clearage and leucin, tyrosin, aspartic acid and other amido compounds are formed, these undergo oxidation and NH_2CO_2 and H_2O are formed. The NH_3 and CO_2 unite to form ammonium carbonate, which ($CO\begin{matrix}NH_2\\ ONH_4\end{matrix} - H_2O = CO\begin{matrix}NH_2\\ NH_2\end{matrix}$ urea) by the loss of molecule of H_2 is converted into urea. He believes this is accomplished in two stages: first, two atoms of H are removed, and then one of O. Various physiologists have demonstrated that when the liver of dogs is removed (though ultimately fatal) carbonates appear in urine and urea is greatly diminished in amount. That any urea is found would tend to show that the liver is not its only source. Where else in the body it is found is not known.

The relationship of certain cases of dropsy to disease of the kidney was in part known to the ancients. Although Cotunnius in 1770 dis-

covered that urine of dropsical patients was coagulable by heat, and while it is true Wells (1806), Blackall (1816), and Allison (1820) wrote upon the subject, it remained for Richard Bright to give us the first insight with the true nature of non-suppurative disease of the kidneys, which he did in 1827, and subsequently Bright demonstrated the dependence of dropsy and albuminuria upon disease of the kidney, describing accurately the lesions and the phenomena of nephritis. A few years later, 1840, Rayer announced his discovery that eclampsia is preceded by albuminuria and the inference of kidney involvement. This recognition may be said to mark the starting point in the establishment of the theory of the toxemia of pregnancy. The convulsions which for ages have been known to menace the gravida were considered as closely connected with uremic convulsions; indeed, Ferrichs looked upon eclampsia as being simple uremia due to retained waste products. In 1840 Pokitansky described the lesion of acute yellow atrophy of the liver, and Ferrichs was one of the first to observe that a large proportion of cases occurred in pregnant women and established the fact that a secondary toxic state, termed by him acholia and by some cholemia, had a special attraction for the gravida.

To Ferrichs and Karl Braun is given the credit of pointing out the relationship between eclampsia and liver lesion by the recognition of the fact that in some cases the kidneys are normal and that in these cases the liver is the seat of the destructive lesions. Modern investigations have shown that the liver is seldom or never free from alterations in eclampsia, these varying in intensity from normal changes to acute yellow atrophy itself, and this line of research has terminated in the modern claims of Jurgens that hemorrhagic hepatitis is to some degree characteristic of eclampsia. To Tarnier is given the credit for the announcement that the liver almost invariably undergoes some change in all gravida, a fatty infiltration of the parenchyma. Williams has found marked liver changes in all of his recent autopsies of eclampsia, some seventy-four cases. It was originally supposed that the gravida was unduly susceptible to Bright's disease, and eclampsia looked upon as being of renal origin. The specific character of the kidney of pregnancy was recognized by von Leyden in 1886. He pointed out the fact that the anatomical changes are not inflammatory but rather degenerative, the renal epithelium undergoing a fatty infiltration, with subsequent degeneration and regeneration. The degree of involvement varies, and it may be complicated with nephritis, which affection may have antedated the event of pregnancy as subacute nephritis may first become manifest during pregnancy and by an acute exacerbation cause true uremia. An acute nephritis, as in scarlet fever, may develop upon a pregnancy kidney and confusion result as to whether it is a case of simple uremia or eclampsia. Undoubtedly such cases of a true nephritis have been reported as due to pregnant kidney.

Chronic interstitial nephritis-contrasting kidney, the very kidney lesion which in time invariably produces uremia, seems to be a little

affected by pregnancy, and only in a very small percentage of cases do pregnant women so afflicted develop convulsions. This fact has done much to convince observers that a radical difference exists between simple uremia and eclampsia. Uremia develops as a result of sudden suppression of urine or when the parenchyma of the kidney has been slowly destroyed. Eclampsia develops when the pregnancy kidney has reached a certain degree in the degenerative course and thus far agrees with uremia. But eclampsia is known to occur when the urea output is still normal, when no albumen or casts are found in the urine, and in cases in which the kidney showed no lesion, or so slight as to be of no material consequence. As to the urinary findings, these are so varied as to discourage any classification. The total solids is usually decreased, the urea output being often very low. The amount of urine is decreased. Albumen is often present, but in only a small percentage of cases showing albumen does eclampsia occur. Williams, in a paper on the "Toxemic Vomiting of Pregnancy" states, "the urine, while diminished in amount as the result of scanty intake of fluid, does not contain albumen or casts until shortly before death, and may apparently present a normal amount of urea, as determined by the Doremus method, so that its casual examination gives no clue to the gravity of the condition. In reality, on the other hand, more detailed chemical examination at an early period reveals changes which are indicative of a profoundly altered metabolism. These consist of a decided decrease in the amount of nitrogen excreted as urea and a marked increase in the amount put out as ammonia. Accordingly, while the total nitrogen eliminated as ammonia is greatly increased, and this so-called ammonia coefficient, instead of being 4 or 5 per cent., as in normal pregnancy, may rise to 20, 30 or 40 per cent. In my experience if the latter (ammonia coefficient) exceeds 10 per cent. the diagnosis of toxemic vomiting should be made and the pregnancy immediately terminated, as there is no likelihood that the process can be checked by therapeutic measures if it once leads to the production of characteristic hepatic lesions. Edgar states that, "The kidney is affected in pregnancy by lesions which stop short of actual nephritis." Another author states that, "An acute inflammation of the kidney cannot be caused by pregnancy." Edgar and Williams both hold the opinion that the pregnancy kidney is in all probability a mild product of toxemia. These facts suggest the theory of a circulating poison which is capable of first injuring the kidney and compromising its function to such an extent as to cause more or less suppression of urine, and many of these circulating poisons can cause a condition resembling uremia without any apparent injury to the kidney.

CONCLUSIONS.

1. Uremia and eclampsia are separate and distinct conditions, uremia implying a permanent discontinuance of renal functions and leads to fatal termination; eclampsia is not *per se* fatal and recoveries are frequent and the changes of pregnancy kidney undergo resolution with complete recovery.

2. That pregnancy does not produce a true nephritis.

3. That the pregnancy kidney is an acute fatty infiltration, is a secondary consideration, due in all probability to the underlying toxemia.

4. That kidney involvement with insufficiency as an etiological factor in the production of toxemia and pregnancy has been overestimated.

5. That hepatic insufficiency is more important and liver changes are more constant and characteristic than renal, and that both depend on the underlying toxemia. The exact nature of this toxemia is not known, and many theories have been advanced in explanation. To me there seems to be two factors: first, predisposing, and, second, exciting of the predisposing factors should be mentioned individually with all the term implies, heredity, diathesis, etc., the liability of the individual to disarrangement, function or otherwise, of certain organs of the body, especially the liver.

Whatever the underlying predisposing condition in the individual, the exciting cause seems to be in the impregnation of the ovule. With the growth of the ovum there is a marked change in the metabolic processes of the body; increased activity of various organs, especially the liver. This occurs in all gravida and is physiological. In any given case these physiologic changes, passing beyond a certain point, become pathologic. The liver, governing in a great measure the process of metabolism, is usually an overworked organ, and in pregnancy has an added burden, not only of increased metabolism on the part of the mother, but to care for the nutrition and waste of the fetus as well. It is reasonable to presume that this excessive stimulation can and does lead to structural changes seriously impairing the hepatic function. As a result we have perverted metabolic products, which I believe constitute the basis of the toxemia.

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JANUARY, 1909.

THE DIVISION OF FEES.

Our correspondence columns will show that considerable interest has been aroused by the discussion of this topic, which began in the November issue of THE JOURNAL.

Owing to the large number of communications which appear we have decided to postpone editorial comment on the subject until a future issue. Our only contribution to this discussion will be the insertion of a translation of a letter from Paris to the *Deutsche Medicinische Wochenschrift*, which shows America is not alone in the consideration of the evils mentioned.

For our February issue we invite still further consideration of this topic on the part of our readers, as we believe that the time is ripe for some fair decision on this subject.

DR. PETTIT'S VISIT TO LOCAL SOCIETIES.

J. W. Pettit, M.D., President of the State Medical Society, has been visiting the various county medical societies, and up to Dec. 22, 1908, has addressed the members of the profession in fifty-five (55) counties of the state. His first care has been the smaller and more poorly organ-

ized counties. These he found in the southern part of the state, and great interest has been raised in the profession and it is believed that great good will result from Dr. Pettit's visits. Dr. Pettit expects to go to southern California, January 1, for his six weeks' or two months' rest. Upon his return he will resume the work of visiting the remaining counties in the state and hopes to complete this task of visiting every county before the meeting of the State Society.

SANITARIUM FOR TUBERCULOUS WOODMEN.

The Modern Woodmen of America, a fraternal insurance society with headquarters at Rock Island, Ill., has established an up-to-date sanitarium, the tent colony plan being employed, on a tract of 1,380 acres situated seven miles from Colorado Springs, Colo. The first patients will be admitted Jan. 1, 1909, to the number of sixty. Only those who are curable or whose lives may be prolonged for a certain length of time will be admitted as patients. As there are 13,000 local camps and over 1,000,000 members, it will be seen that this movement is destined to reach a very large number of people. The society believes it will be a good business proposition as well as good fraternalism, and as the members of the Illinois State Medical Society are frequently called upon to treat members of this order, it will be well for them to remember the provisions that have been made for the free treatment of these persons.

THE SEVEN CLASSES OF NOSTRUMS.

Secret nostrums, proprietaries or patent medicines may be divided into seven classes for the sake of convenience:

1. The peddler's patent medicine, often composed of harmless infusions, linseed oil, etc., made by people generally too poor to pay for a printed circular, and peddled from house to house.

2. The ordinary patent that lines one whole side of a druggist's storeroom, sold by newspaper and window displays, and whose virtues in many instances reside in the amount of money spent for advertising.

3. The . . . Chemical Company's specialty, of the type so numerous and whose composition consists of those new fancy named chemicals and scientifically extracted new proximate principles.

4. The various acetanilid and coal tar preparations that come from no one knows where except the manufacturers.

5. The newer form of patent prescription medicines, of the kargon, oil of pine, barkola, spirene type.

6. The struggling pharmaceutical manufacturer's full line of specialties, whose claim of imitation is so loud and who tags a new name on to every U. S. P. or N. F. preparation that he thinks will sell.

7. Last, but not least, comes the rich manufacturing houses' strictly scientific and other specialties.—*The Journal of the National Association of Retail Druggists.*

HEALTH IN CHICAGO AND THE DRUGGISTS.

Recently *The Chicago Tribune,* in bold type, proclaimed that the condition of public health was driving druggists out of business. As the same condition would deprive physicians of a living, we were much interested in obtaining the truth of the statements. *Notes,* the journal of the druggists, in reply calls attention to the fact that all druggists quitting business, as stated in *The Tribune,* were located in the south side of the city and was confined to dealers endeavoring to conduct more than one store. While health conditions are certainly excellent in the city, yet druggists who attend strictly to business are enjoying a good degree of prosperity. Conditions have been much improved by the propaganda in behalf of official preparations and against nostrums and to the abandonment by some physicians of the self-dispensing habit.

As *Notes* says, "the real moral of *The Tribune* 'scare head' should be that a druggist should have one place of business and stay with it." The same argument usually applies to medical men. We will add that if the druggists would abandon the counter-prescribing habit as physicians are abandoning the dispensing habit, both professions and the health of the people would be the gainers.

TEXAS EXAMINATION.

Dr. M. E. Daniel, secretary of the Texas State Board of Medical Examiners, of Honey Grove, Texas, requests us to state that the regular semi-annual examination of that board will be held in Cleburne, June 22-24, 1909. Further particulars may be obtained by addressing the secretary.

A MEMORIAL TO DR. JOHN H. RAUCH.

In Lebanon, Pa., Sept. 4, 1828, of good Pennsylvania Dutch stock, was born a boy who, taking up the study of medicine and graduating at the University of Pennsylvania in 1849, before he was 21 years of age, was destined by his own native ability to make a large impress on the history of the country. It is sadly true that the benefits his efforts bestowed on the people are not known and appreciated by the general public. Even the profession which he did so much for is only now waking up to a sense of their obligation to this man. It was the privilege of the writer, as his assistant and later as a member of the State Board of Health, to be intimately associated with him for more than a dozen years and thus to gain a knowledge of his sterling character which is possessed by few of those now living. A relative, Dr. S. D. Carpenter, retired, of Chicago, now in his eighty-third year, was a classmate; he located in Iowa about the same time and was intimately associated with him before, during and after the war and has given us many details of his life.

Dr. Rauch located in Burlington, Iowa, soon after his graduation, where his devotion to the science and art of medicine and botany soon brought him into prominence, and about 1858 he was called to a chair in

the Chicago Medical College. The breaking out of the war was Rauch's opportunity for experience in sanitary matters and for a knowledge of the delinquencies of the medical profession. He soon rose to great prominence in military circles and his services were appreciated. He was medical director of the Army of the Potomac under General McDowell and of the Nineteenth Army Corps under General Banks. Soon after his return to Chicago the office of commissioner of health for this rapidly growing community was created and Dr. Rauch was installed in the office. Here he rendered valuable service in securing a good water supply, in establishing a sewer system and in organizing park districts.

He was largely responsible for the passage of the state law of 1877 establishing a board of health and regulating the practice of medicine. He was first elected president, and when it developed that the active executive officer was to be the secretary he assumed that office. For a period of fifteen years he gave his whole time and attention to this work. The work of the board as directed by him, and made known to the world by the annual reports which were regularly issued, at once aroused national and international interest. For many years all American states looked to Illinois and Rauch for relief from prevailing abuses. When the writer made his first trip to Germany in 1885 he found that Rauch's name and work were well known there. Dr. Paul Börner, founder and editor of the *Deutsche Medicinische Wochenschrift,* said: "Illinois is a well regulated state—the only one in America."

There never was any compromise with quackery on the part of Dr. Rauch. His constant fight against this gentry finally cost him his position, but this made no difference with Rauch. He would have fought charlatans if it had cost him his life. The writer can never forget some of those contests with quackery. One day after the state had been free of medicine shows for years an "Injun Doctor" set up his tent and gave a parade through the streets of Springfield. The wags, knowing Rauch's hatred of quacks, made the doctor's life miserable while the faker remained in town and dispensed his "King of Pain." "The K. & K. Specialists" registered in January, 1884, at one of the local hotels and filled the newspapers with flaming advertisements. Their swindling schemes were promptly attacked by Rauch, with the result that they soon left the state.

In 1886 the McCoy case, and later the Brinkerhoff case, came up, both of which were destined to give Dr. Rauch a great deal of trouble. These people managed to interest a number of influential attorneys and citizens and a vigorous fight against the action of the board was instituted. The board received very little, if any, support from the medical profession. The profession was entirely unorganized and the board received absolutely no assistance in its contest with these parties. As a result influences were brought to bear which forced Dr. Rauch from the office in 1891. Had the present organization of the profession then prevailed no such injustice could have been perpetrated. This cruel blow broke Dr. Rauch's spirit, and after remaining in Chicago for a short time he went to his boyhood home in Pennsylvania.

In the early eighties a severe epidemic of smallpox threatened not only Illinois but the whole country. With the assistance of Dr. F. W. Riley and a staff of helpers, clerks, etc., a campaign was organized which saved the nation thousands of lives and millions of dollars. The quarantine regulations of the Atlantic seaboard ports as they stand to-day are largely Rauch's work.

In 1892 Dr. Rauch had charge of the quarantine station established at Sandy Hook by the national government. In 1893 he helped organize the State Board of Health in Pennsylvania, which was modeled after the Illinois organization. By this time Dr. Rauch's health was rapidly failing and his activities were necessarily much limited. On March 24, 1894, he was found dead in his bed at Lebanon, and thus quietly passed away a man whose stature as a sanitarian and benefactor of the people and the medical profession will grow as the years pass on.

Dr. Homan of St. Louis has proposed (and others have seconded the proposition) that some suitable memorial of Dr. Rauch be erected in Chicago. Of course the organization to take hold of this matter would be the Illinois State Medical Society, and we hope that this proposition will meet with immediate response from the members of our organization.

It has occurred to the editor to suggest that when the new John Crerar Library is constructed probably some arrangement might be made by which a bust of Dr. Rauch should find a prominent place in the medical department of that structure, which, as we understand, will be largely given over to medical and scientific works. Certainly by this or some other suitable memorial Dr. Rauch's great work should be recognized by our society.

Correspondence.

MEMORIAL TO DR. RAUCH.

LEBANON, PA., Dec. 13, 1908.

DR. GEORGE N. KREIDER, Springfield, Ill.

My Dear Sir:—Yours of the 9th inst came duly to hand. Am pleased to say that I am the brother of the late Dr. John H. Rauch, whom you met at Decatur, Ill., and highly gratified that even at this late day a movement is being started to erect some suitable memorial to his memory that shall in some measure be a tribute to a man who sacrificed health and pecuniary consideration to public sanitation and to advance the standard of medical education. Egotistical as this may sound, I was in close touch with him from my early boyhood days to the morning I found him dead in one of the rooms of my house, and, as executor of his estate, I acquired information that fully justifies me in saying that even prudent forethought for the eventide of his life, as he was approaching it, was subordinated to his lofty professional

ideas, and the ever-present thought in his mind—the improvement of public health through the medium of preventive medicine. The latter part of his life, although showered with honors from all sources and sections, gratifying as they were, recall even now emotions that words fail to express. "Devotion to duty" as he saw it was his motto. His remains rest in a family block in Mt. Lebanon Cemetery, a beautiful, elevated spot overlooking the city of Lebanon, Pa. This is surmounted by a family monument with inscription, "Rauch." His grave has a marker with his name, date of birth (Sept. 4, 1828), died March 24, 1894.

To erect a suitable memorial here, I do not think would be feasible, as there is a sister buried right next to him. When at Decatur I was informed that a memoir of his life was to be gotten out by Dr. Reilly, of Chicago. But I saw him and he said he could not do it. Later on I was informed that one of the new parks was to be named after him, as he was the father of the system of public parks in the city of Chicago.

I recall reading a pamphlet he wrote on public parks in Chicago many years ago and know he was greatly interested in them. The naming of one after him and the placing of some sort of a pedestal therein or in one of the older parks suggests itself to me as a tribute to the great work he did as secretary of the Illinois State Board of Health. This, however, is to be regarded only as a hint. I saw the article in THE JOURNAL written by Dr. George Homan, of the Missouri State Board of Health. This will be replied to by one of his old friends of this city, Dr. Wm. M. Guilford. We will be pleased with whatever shape this matter may take even at this late day, and if I can be of any service to you or the gentlemen who may take charge of it command me.

Yours very truly,

CYRUS G. RAUCH.

A PIONEER IN THE FIGHT AGAINST QUACKERY.

ST. LOUIS, MO., Nov. 23, 1908.

To the Editor:—"The Department of Medical Education and State Boards of Registration in *The Journal*[1] is one of the highest interest and importance; and, in looking over the contents, I have more than once thought that the prime mover in the great undertaking for better things which this department evidences did not receive during life that full recognition at the hands of the medical profession which his achievements deserved. Nor has this acknowledgment been publicly made since his death.

"I refer to the late Dr. John H. Rauch, secretary for many years of the State Board of Health of Illinois, who, in all matters pertaining to medical education in America, was a pathfinder, pioneer, waymaker, one who fought the good fight for honesty and thoroughness in medical teaching and training with such persevering firmness that the fruits are now being gathered throughout almost the entire length and breadth of this continent, and whose well-earned fame can in no wise be dimmed through the luster gained by those who may come later.

"As secretary of the State Board of Health of Missouri for a period

1. Copied from The Journal of the American Medical Association, Dec. 5, 1908.

concurrent with a part of the public life of Dr. Rauch, I was in sympathetic official touch and agreeable personal relations with him, and can testify to the friendly aid often extended to clear up the new and difficult questions that arose with respect to the standing of schools, dealing with advertising frauds, examination and licensing of medical applicants, and the like.

"Where the body of Dr. Rauch was buried is not known to me, nor whether the spot is marked by any memorial adequately showing the vastness and value of his work to the public and the profession; but, in view of his life and labors, the question may be asked whether it is not a serious obligation resting on the organized profession of Illinois to take the lead in a movement to raise in some appropriate place a memorial in marble or bronze that shall signify to later generations his rightful place in the great struggle in which he was the chief leader, censor medendi, pontifex medicus.

"The evidence of his worth and work should appeal to every reputable medical college now extant in the land, for in testimony of his merit may be shown the graveyards where a host of fraudulent concerns were buried through his energy, pluck and ability. Therefore, such medical schools and the various state sanitary and licensing boards should welcome the opportunity to aid in forwarding a movement to render a fit tribute to the memory of a man whose services were fundamental, beneficent and of enduring value to the welfare of his fellow-men.

"GEORGE HOMAN, M.D."

AN INQUIRY ABOUT MEDICAL LEGISLATION.

To the Editor:—In commenting upon the "Urgently Needed Medical Legislation in Illinois," Prof. G. W. Webster (vol. xiv, No. 6, page 683), says in part: "Its chief weakness lies in the fact that it (medical law of Illinois) provides for voluntary registration of deaths." Is the same thing true regarding the registration of births? If so, are we to understand that such registration is optional; and, if so, of what avail is the attachment of a penalty of $10 to $100 or thirty days' imprisonment, or both? Light thrown upon this subject will be gratefully received.

W. W. KUNTZ, M.D., Liberty, Ill.

DISCUSSION OF THE FEE QUESTION.

MALTA, ILL., Dec. 6, 1908.

To the Editor:—If division of surgical fees was to become general it would endanger the moral standing of the medical profession. Certainly few doctors want their patrons to know they are financially benefited by sending them to a specialist. If the practitioner felt that it was perfectly legitimate to take a rake-off, he would have nothing to conceal. He is supposed to charge what his services are really worth, and is practicing deception when he does not accept such fee as his entire pecuniary

reward. When we send patients to specialists, we do it more often for the patient's benefit; sometimes for our own, as we recognize in the specialist a person, by equipment and environment, more capable in his line than we. If he is what we would have him to be, why ask him to place us upon the list as paid solicitors?

Divisions are more easily obtained from surgeons of little note and less skill; hence are pernicious in lowering the standard of skill. High-class surgeons are, as a rule, high-minded men, appreciative of the physician's patronage. If their patrons are honest, the worthy poor are as well looked after as the well-to-do.

There is always a reason for a doctor occupying a high plane in his profession. If we admit more mental development along certain lines to be the cause, why ask him to recompense us who, from lack of effort, have not reached his degree of proficiency? The country doctor is a very useful member of society, providing he begins upon a good foundation, is endowed with good common sense, is a keen observer, takes into consideration what others say upon a subject, then comes to a conclusion of his own; he then becomes an indisputable factor, but he should not expect pecuniary reward from some one else's higher attainments.

L. E. Barton.

FURTHER DISCUSSION OF THE FEE PROBLEM.

To the Editor:—Some time ago, in response to an invitation in your editorial columns, addressed to the profession of Illinois, I wrote you a personal letter, not intended for publication, calling your attention to certain conditions which, in my opinion, were of serious detriment to the profession and danger to the people whom we as a profession have always been striving to protect at expense to ourselves and in face of bitter opposition from our proposed beneficiaries.

As a body we have secured the passage of laws against the wishes of the people and with no thought of our own interests until at the present time the most accomplished physician in this state, if he be so unfortunate as to have begun the practice of medicine prior to the enactment of the latest legislation governing physicians, is a malefactor if he crosses a state line and endeavors to perform any of the functions of his calling, and nothing can help him. As individuals we have sought to do the best for our patients, often against their own desires and always at a pecuniary sacrifice to ourselves.

This statement I believe to be true, and with respect I bare my head in spirit to the average medical man, whether he be devoting his entire time to surgery in the hospitals of a great metropolis or whether in the necessary performance of his duty the most of his time is spent in earnest contemplation of the anal orifice of his overworked horse.

My letter slandered no one. I did not suggest that any one be robbed of deserved earnings. I did not say that surgeons charged too much. I described conditions as they exist in my limited sphere of observation. I told of physicians around me who, under no circumstances, would permit a surgeon to be called in consultation, and this, by the way, is no

greater error of omission than the error of commission we see in the thousands of nephropexies, hysteropexies, curettements and ovariotomies which have been done often without sufficient warrant in the name of surgical science. Again, I described physicians who only called surgeons whom they could depend upon to operate without question and accept a small fee in cash.

I failed to describe the most dangerous of all of whom I have personal knowledge, and that is the young graduate who with a tea kettle and a coal miner's wash-pan will undertake any operation from a cholecystectomy to a hip-joint amputation. And they are not to blame. Their patients do not all die and they only do what they have been taught to do.

In securing my medical education, I do not remember having been advised to seek counsel or assistance in but one condition, that being the performance of a necessary abortion. On the other hand, I distinctly remember being told by a great surgeon, if a man had a pain in his belly, to cut him open; if a woman had certain pelvic conditions, to do a Cesarean section. I then described my own experience in which, because I knew masters in all the specialties, who could serve my patients better than I could in the immediate operation, but not before and after, I had turned over to other men work which paid them in the last ten months more than $1,800. These patients, almost without exception, were drawn to me by my previous service to them and to the community. They depended upon me for guidance and care before, during and after operation and never heard of the specialists, all of whom are distinguished in the profession, whom I called to help me and them. In each instance I suggested to the specialist the largest possible fee I thought he could collect, because he earned it, and I waited for my own money so that specialist and nurse could be promptly paid. And, truly, when it came time to pay my own little bill at the rate of $1.50 a visit, it seemed to me and to the patient that the service had already been compensated for sufficiently.

I expressed the hope that the better element of the profession would discuss this matter and arrive at a just conclusion in regard to fees and the relation between the general practitioner and the specialist. Not only that I might keep at least a part of my own, but that self-interest or some other influence might be brought to bear to force these other types I described to seek the assistance of competent specialists, and thereby the profession be lifted to a higher plane of usefulness and many lives be saved. I said if a just fee were asked and it were equitably divided, I, for one, would have no objection to making it public, but there would be few people who would take the trouble to ask.

I wrote my letter because I had grown weary of the tirades directed by the surgeons against the general practitioner, holding him up as a menace to the people and as a thief. I had not heard or read one word which in any way showed an understanding of existing conditions as I saw them.

My letter was published at the same time as a most sensible and con-

servative article by Dr. Reid, of Jacksonville. In the next issue of THE JOURNAL there appeared a letter signed "Lege," discussing the subject from the standpoint of the surgeon. I did not feel that there was any occasion for me to write more, although "Lege" classed me personally, by implication at least, as among the undesirable, if not dishonest, members of the profession, and he drew a picture of himself as a typical surgeon which entitles him to sympathy. But I do not think his experiences are altogether like those of other surgeons of mature experience. It is admitted, I think, by all that the American surgeon occupies an enviable position and is truly lord of creation in one particular sphere. But the president of our state society, in an address in East St. Louis, admitted that there were two sides to this question and advised me to read the letter of "Lege." Thus he gave it official recognition, and I then thought I could, in justice, ask you to publish a little more from my pen.

"Lege" says he is brought to write because no one has been willing to discuss this question from the standpoint of the surgeon. I, on the other hand, although a constant reader of the state and national journals, have not seen it discussed from any but the surgeon's standpoint. I would refer him particularly to an article by Dr. Bayard Holmes, published several years ago in this journal, which, even though unintended, was an insult to every general practitioner in the state. That is one of the strange things about this subject. The very thought of thus losing his virtue makes the surgeon wild and he immediately denies that the general practitioner is worth anything for any purpose. "Lege" says this plainly.

I have known a surgeon to charge $5,000 for making a few incisions on a dying man and general practitioners rush into court to help him collect his fee. He earned this sum because of the skill and responsibility involved. What! Oh, what of the skill and responsibility of the general practitioner who caused this particular surgeon to be called into the case? "Lege" tells us he made lots of money when he was a general practitioner and, now that he is a surgeon, he works equally as hard, is up at night, and drives over country roads, and now does not make enough to pay back the money borrowed and spent to acquire surgical skill. Now is that not unusual?

He says when he was a general practitioner he had sense enough to know he did not have the requisite skill and experience to make him worth much as an assistant. I would like to call attention to the youth and inexperience of the average regular assistant and anesthetist to the average surgeon.

This doctor tells us that he is now risen to the place where the incompetent operator calls him in order to escape the blame for his own mistakes. He speaks of this as though it were a gracious act peculiar to surgeons. I have rendered this service many times in both medical and surgical cases, and I thought I was only doing my duty. If he can show me I am not under obligations to assist a less competent brother

out of his difficulties and help him keep patrons who ought to be mine, I can increase my income much more than by any possible division of fees.

He threatens to go back into general practice—a privilege which is his and yet would render him less useful to suffering humanity. It must be admitted that with his whole energies devoted to surgery he can do better surgical work than in the intervals between calls to obstetrical and diphtheria cases.

If he must go back into general practice, I must go forward into surgery where I will be more useful to the public. I have the ability to prepare myself to do all the surgery necessary among my patients, and I can no more afford to curtail my income for idealistic reasons than he can.

He says the general practitioner thinks he has a mortgage on every individual who consults him. Some general practitioners have a mortgage based on confidence on nearly every individual, and it is sufficient to enable him to divert the patient into the hands of the surgeon whom he prefers. The Doctor says he is asked to give one-half or two-thirds of his fee for no service rendered, that the general practitioner has not the courage to charge for his work, and that it is easier to grab ill-gotten money from the surgeon than to earn it. The general practitioner has the courage to name the size of the surgeon's fee and ofttimes to help him collect it in court.

Prices for medical services are fixed by popular consent and honored by time. With the hordes of struggling young men turned out from our colleges it is strange we can hold prices at the old standard. The surgeon renders no help in educating the public to an appreciation of the value of the services of the general practitioner. On the other hand, surgical services are new to the people, and general practitioner and surgeon alike join in teaching the patient that the price is cheap and must be paid at once.

Yet in a condition where both medical and surgical services are required, the surgeon claims it is dishonest for him to collect the whole bill and pay the general practitioner, or to let the general practitioner collect the whole bill and pay him, or to put his name jointly on the bill with that of the general practitioner and divide the fee. He declines to itemize his bill, but insists that the general practitioner shall itemize his. The surgeon calls all these plans thievery. I saw a patient (not my own) not long ago pay $300 for a trachelorrhaphy.

Let us see the surgeons collect their bills without the moral support of the general practitioners!

"Lege" says he is weakening a little and thinks of hiring a general practitioner by the month and thus establish a medical department-store. Welcome the day! Just about that time we will establish a medical department-store in St. Clair county and we will have no trouble in hiring good surgeons. I have heard of three who give liberal commissions.

When I began the practice of medicine a surgeon who lived and died

honored by the profession and people of Illinois invited me to bring my poorer surgical patients to him to be operated on free of charge, and for those who were able to pay he said he would allow me a commission of 25 per cent. on all fees collected. I did not take advantage of his offer and only now begin to realize how narrowly I escaped being the instrument in the hands of Providence for corrupting the morals and robbing the purse of an honorable surgeon.

"Lege" says with evident glee that the public is learning about medical graft and will soon cease to pay middle man's profit. It is always desirable for the public to learn, but when we teach them that the general practitioner is worth nothing they are apt to learn at the same time that the surgeon's services can not be worth $150 an hour.

General practitioner and surgeon look a good deal alike to the dear people. But are we really as bad as the surgeons seem to think? Does our record speak nothing but corruption and incompetence? I think we want a better understanding and a closer union. We want to wipe out abuses, we want to give the people the best service within reach and we do not want to enter into collusion.

I wanted a new carpet last October, and my dealer, who has had little experience as a merchant and has only a few thousand dollars invested, could not sell me what I needed, and he sent me to a great carpet palace in St. Louis, where hundreds of thousands of dollars are invested in carpets and much mental energy expended in selling them. I selected my carpet and it was sent to my local dealer. He put the finishing touches on it and laid it on the floor and I paid him for it. I am sure he made something out of the transaction, although I did not inquire how much. I certainly did not think he robbed me or the bigger carpet man. All of us are satisfied with the transaction.

But he is not engaged in our high calling and is governed only by ordinary rules of honesty and fair dealing. He does not serve humanity as we do. He only buries the dead and helps along the good work of the stork by supplying household goods on credit to newly-wedded pairs.

I called on Mr. Lawyer the other day. He holds a county office and is quite as much respected as an honest man as any doctor hereabout. I noticed in his last important legal case he had associated with him the celebrated attorneys, Blank and Bustem, from the nearest city. I asked if he paid Blank and Bustem or if they rendered a separate bill to the client. He seemed surprised at the absurdity of the last question until I explained that doctors do that way. He said he hired them and he paid them. The client, according to his view, was his. He said B. and B. would not think of rendering a separate bill, and it seemed to me neither foreign attorneys nor client considered themselves robbed. But these gentlemen are governed by different standards of honor. They do not inhale our sacred atmosphere or worship our golden calves.

I must not close, if my letter is to be published, without a word about those good men and true who have helped me and my patients in our hours of need. If I am to be classed as a dangerous and corrupting member of the profession, I do not want my friends to suffer by associa-

tion with me. Not one of them ever offered me a rake-off, and not one will ever be asked for a penny under whatever name. I selected them as my advisers because of their ability and integrity, and I do not believe I am different from the great majority of practitioners when I affirm in truth that no offer of a commission would tempt me to divert one patient to any other specialist. J. H. FULGHAM.

Dec. 17, 1908.

COMMENDATION OF "LEGE'S" CONTRIBUTION.

Dear Doctor:—I have read with both interest and profit your most excellent letter in the current issue of the ILLINOIS MEDICAL JOURNAL.

One difficulty with which I meet you failed to mention. I have been limiting my practice in my special line, nose, throat and ear, for the last twelve or fifteen years. For a few preceding years I mixed special and general work, life insurance examinations being the last surrendered.

Since limiting my practice a very large per cent. of my patients are referred by other physicians to me, and a considerable number of those who come through old patients I have treated have their own family physician. In neither case can I feel privileged to refer any of these patients to either surgeons or specialists in other lines when such services are required; hence I can not reciprocate by referring patients to those who have sent me business—at least only to a slight degree—as I have no general practice upon which I can draw for this purpose.

Being located in one of the smaller cities, as you state, you do not have the free clinic trouble to contend with. DR. EDWIN PYNCHON.

Chicago, Dec. 5, 1908.

THE FEE-SPLITTING PROPOSITION.

CHICAGO, Dec. 15, 1908.

To the Editor:—I have followed the discussion in regard to the fee-splitting proposition for some time. I do not propose to write on the topic in a serious mood, because that would tend to dignify the money question and, therefore, will never do for persons engaged in a pursuit as serious as ours. To my mind, some of the letters written on this subject are pathetic, some are serio-comic. I do not believe the affair will ever be handled in an unbiased manner until an artist of the George Ade temperament undertakes to settle it. The public cares little for debate along this line; it does no good and is only a source of friction among ourselves.

I have received the impression from some of the epistles which appeared in THE JOURNAL that there are two classes of men responsible for this tempest in a teapot. Those men represent the two extremes of professional ability; they are, in a measure at least, necessary to each other; hence should come to some amicable agreement and not make so much noise about it. The average man who does his own work views the scene with equanimity. The first is the master surgeon of large

renown. He is a business man as well as a surgeon. He has invested in medical college stock, sometimes owns the whole plant, is on the staff of every hospital of importance in town, spends hours of his valuable time teaching the budding medical tyro, attends every medical meeting he can reach and reads a paper, employs a literary corps to assemble his copy and look up the extensive bibliography of the subjects of his learned research, and finally bought stamps and paid for reprints to send to the less favored brother who has not the ambition to pursue this line of endeavor for himself. He does all this and many more things, not for gain—perish the thought—but for the good of humanity; to enlighten the fellow who never reads medical literature except P. D.'s almanac and the said reprints. The follow-up system is brought into play; two or three copies of surgical essays per year are sent to the doctor. Sometimes the subjects are new; often, like Bier's treatment, they are resurrected relics of a by-gone age burnished with classic verbiage and fired at the unsuspecting practitioner.

Finally, in the town where the doctor lives, who has been receiving all this information free, dwells old Mr. Reub, the wealthy planter, who loses the hard potato he has carried for years as a preventative of disease; he becomes very ill with some complaint that puzzles the attending medical man. Jealousy, conceit or egotism forbid the doctor from calling in a local man who could befriend him in his trouble and not steal his patient, either. In his perplexity, the vision of the reprint man appears. Mr. Reub is carted away to the city; the doctor carries his trunk and introduces him to the great surgeon; here his mission ends. At the operation, as a mark of honor, he sits in the arena draped in a white gown; he is courteously treated; is addressed Doctor, in mellow, musical tones; is congratulated by the operator on his diagnostic acumen, and that is all that is coming to him. At this angle of the game the wise junior interne conceals his merriment with difficulty. The surgeon gets $5,000 for his services, and if the doctor has no mileage book he beats it home in a side door Pullman—a sadder but wiser man, glad only in the conviction that he has done a few stunts for suffering humanity.

When he arrives home he meets his good wife, who is delighted to see him. When she inquires how much coin he received for his professional trip he becomes peevish. Her mind, untutored in medical ethics, can not comprehend the lofty disdain of her husband for money, especially since the children need new shoes; old Molly, the faithful mare, is near played out, and a hard winter season is approaching. After pondering over the matter, he wakes up to the fact that he is a chump, that old Mr. Reub does not care a bit who got his money as long as he recovered his health. As a reward for his persistence in recommending the surgeon to operate on him, Mr. Reub sends our friend a load of hay to feed old Molly.

It dawns on him that platitudes on the glory of the profession and good of humanity are overworked and contain a large element of "bunk" that, for instance, many members of the committee on the abuse of medi-

cal charity are directing geniuses of the largest free dispensaries, that instead of himself and family feasting occasionally on chicken they are getting back close to pork chops and glad to get them. At last he joins the local medical society, fraternizes with the brethren, finds them all good fellows, but persists in scolding about economic conditions he and his class are responsible for.

Should the surgeon pay this doctor for bringing him his case? Well, I should say not. As an elementary business principle it would be without precedent to pay commission on business not needed or appreciated. This surgeon's physical capacity is taxed to the utmost, his reputation is supreme, the early inspiration that guided him to what he is was helped by a lot of perspiration. That is why those seeking his advice pay the price. Yet this same type of man will go out of his way to treat your family and mine well. Personally I have the greatest respect for the man that can deliver the goods. I feel honored by the criticism of such men when my professional work falls below par. I find no fault with the consultant's business methods, but for business reasons I can not follow them. When the self-appointed apostle of reform in business morals starts to convert me to his way of thinking, he must come to the temple with clean hands; when he starts on his mission, he must begin with the individual unit in the profession. I am one of the units—an obscure one, to be sure, and frankly confess in this respect I am incorrigible.

Business is business in medicine as anywhere else. If you do not believe it subscribe for a journal edited by doctors. Do not pay for it and see what will happen to you.

This brings us to the point: If we need counsel and are sincere, whom shall we choose, as this is largely a matter of personal equation? The analysis would be difficult. We may honestly entertain some undeveloped opinions even in regard to great men. Some of the most distinguished clinicians are avowed therapeutic nihilists; some very clever operators leave important postoperative details to unpaid subordinates. The best of us sometimes lose patients over 80 years of age.

When I began to practice in this town I was broke, but, optimistic by nature, I promptly got married. I had taken the fashionable trip to Europe and that finished me, financially speaking. About this time Dr. Werkmeister returned home after a two years' absence abroad. We located in the stockyards district, a few blocks apart. We became friends and have remained so. There was an immense clinical field, plenty of work, and we did our share of it. We had no hospital facilities; at that time those institutions were closed to outsiders. We did our first appendectomy on a kitchen table without the aid of a nurse; that fellow is living yet. Money was tight and the people had the professor habit bad. When any of them thought they were seriously ill a consultation was requested. It did not take us long to discern that after the $10 fellow was paid there was oftentimes little left for us, and, as we needed the currency, we decided on making different arrangements. We had a memento of graduation days' affluence—a plug hat of ancient

vintage. When I requested counsel the doctor donned the tile and responded and *vice versa*. This system worked well; sometimes, of course, fastidious persons would insist on the real thing. We divided fees when we received any. When not, we charged it up to experience. This continued for twelve or more years.

When a patient calls me to treat him I contract to cure him if I can. To accomplish this result I bring to my aid every medical, surgical or other means I am familiar with. It is none of his concern who gets the money as long as he is freed from liability for services rendered. I pay the man that helps me, and if I assist another I expect pay for it if there be any change in sight. The patient's money is no use to him without his life. If you save his life you are entitled to half his money, but if you are afraid of jeopardizing your future by asking for it be content with the generosity of your patient. The fellow that rides in a $5,000 gas wagon and makes more money in a week than I probably earn in a year will tell you in eloquent, rhetorical flights that this reasoning is pernicious and unsound. Weigh his motives and you will find he has an ax to grind and he is looking for some professional blockhead to turn the stone.

In conclusion, I would suggest that we banish hypocrisy and be on the square with ourselves at least. There is plenty of sunshine in the practice of medicine; there is no reason why we should always stay in the shade; let each one have his little say on this topic and then forget it; let us be on good terms with each other while plodding along in this moral vineyard, because we will, all great and small, be a long time dead.

Very respectfully,

M. T. NAUGHTON, M.D.

EXTRACT FROM A FEW ADDITIONS FROM A LETTER FROM PARIS BY DR. P. SCHOBER APPEARING IN THE GERMAN MEDICAL WEEKLY, OF BERLIN, DEC. 3, 1908.

The Second Congress of French physicians, held at Lille, June 25-28, 1908, took up two important subjects—one concerning the teaching and examination of applicants for license to practice; the other, dichotomy, the term used by the French for the splitting of fees between the specialist and family physician. This abuse was first introduced by the celebrated surgeon, Pean. He gave the family physician who brought him the case exactly one-half the fee which he received for performing the operation. Good fees are received for operations in Paris, and thus it became a good business for the family physician to drum up cases and railroad them to the great divider. (For many years Pean operated in the government hospitals. His assistants were internes supported by the government, and probably a great part of his instruments, dressings and drugs were supplied from the same source. As a result this Prince of Medical Grafters died about ten years ago worth several millions. For many years he was denied admission to the

French academy. He was never appointed to a professorship. The evil that he did lives after him, the good was interred with his bones.)

This abuse rapidly spread. The majority of surgeons in Paris were compelled to do the same thing to a greater or less extent. Then all the other specialists did the same—obstetricians, oculists, laryngologists, otologists. Even the medical men who were called in consultation divided with the one calling, and finally the dentists, druggists, instrument makers, midwives and nurses embraced dichotomy. That this habit is unworthy of the doctor goes without dispute, for the dichotomy was a secret agreement between the family physician and the specialist behind his back and at the expense of the patient. This abuse increased and greater and greater demands were constantly made. Some of the family physicians demanded and received 75 per cent. of the fee from the specialist and even demanded more. As there is no professional court in France with power to regulate professional matters by proper discipline, Dr. Renon appealed to the congress for moral support in putting an end to this affair. The congress condemned the practice, but they laid down the axiom that the family physician should receive a much higher fee when a consultation is held or operation performed on one of his patients than he received for ordinary attention. It was, therefore, proposed by Renon, in place of the settlement with the specialist who has been called into consultation, that a bill be presented for the consultation or operation to be rendered by both the colleagues taking part. In this manner there would be no secret arrangements behind the patient's back and also, since the bill has not specified, there would seldom be any objections to the price by the patient because the patient is prepared to pay the specialist a greater fee, while he is given to niggardliness towards his family physician. If now, as appears probable, the different societies in France in their discussions and publications shall lay down this principle, it must come to pass that the public will learn the new custom of the conditions of the division of fees between practicant and specialist in a common bill.

The public will be also a gainer by this, for there will then be less danger that the specialist will be called who gives the highest rebate to the family physician, instead of because of his skill and experience.

Several medical societies have declared their acceptance of this plan. One of them in the suburbs of Paris has declared itself as to the proportionate division and stated that in consultations the family physician should receive one-fourth and in operations one-third of the honorarium after deducting the necessary fees to surgical assistants.

With this division taken as a whole, the general practitioner would certainly fare well, and unless he has been accustomed to excessive rebates should be well satisfied.

COUNTY AND DISTRICT SOCIETIES

ADAMS COUNTY.

The fifty-ninth annual meeting and election of officers of the Adams County Medical Society occurred December 14 in the Elks' club rooms, Quincy, with an attendance of fifty-seven active members, Dr. J. B. Shawgo being in the chair. The minutes of the previous meeting were read and then the election of officers was taken up. Dr. Henry Hart, Quincy, was chosen president; Dr. J. H. Pitman, Camp Point, first vice-president; Dr. T. B. Knox, Quincy, second vice-president; Dr. C. A. Wells, Quincy, secretary; Dr. R. J. Christie, Jr., Quincy, treasurer; Drs. Robbins, Brenner, Quincy and Knapp, Mendon, were elected censors; Dr. John H. Rice, Quincy, delegate to the state society for two years; Drs. Pendleton, Ashton and Ericson, all of Quincy, were elected as the library committee and trustees. The secretary's report showed a paid-up membership in good standing of 77. The library committeee's report showed progress in cataloging and arranging the society's library and also made mention of the donation to the society of the valuable library of the late Dr. M. Rooney.

C. A. WELLS, Secretary.

BUREAU COUNTY.

The thirtieth semi-annual meeting of the Bureau County Medical Society was held at the city hall, Princeton, Ill., Thursday, Nov. 12, 1908, with a large attendance. Dr. G. G. Pratt, of Buda, was elected a member of the society. The treasurer reported total receipts $100.78, disbursements (including secretary's honorarium) $58.50, leaving a balance on hand Nov. 12, $42.28.

Two letters from the American Medical Association were presented and read: one from the department of public instruction in regard to the organization and development of a system of popular lectures on medical matters, the other from the directory department regarding a list of advertising companies, for reference. No action was taken.

Dr. S. E. Mason, of Cherry, reported a case of tubercular peritonitis, with its treatment. It was supposed to be tubercular peritonitis, but later developments show more of a cancerous nature. Dr. John A. Robison, of Chicago, read a paper on "Medical Retrospection," and included in it a very interesting and instructive talk on cardiac insufficiency, giving the various forms, causes, symptoms and treatment. For the latter he spoke of the good obtained from balneological exercise of the Schott Bros., of Nauheim, which consists of saline carbonated baths and graduated resistant exercise. The baths need not necessarily be carbonated, but a method of home treatment could be easily managed, as a 1 per cent. chlorid of sodium, with the strength gradually increased to 2 per cent. For increased cutaneous excitation, chlorid of calcium used in a 2 per cent. solution gradually increased to from 3 per cent. to 5 per cent. The carbonic acid baths are given in two methods, slow and rapid; in the latter the acid is liberated more rapidly. He demonstrated the technique for resistant exercises, and emphasized the importance of care and close observation of the patient in giving them.

Dr. B. F. Landis, of Tiskilwa, presented an interesting paper on the "Cause and Prevention of Uterine Hemorrhage." Dr. J. F. Percy, of Galesburg, read an

interesting paper on the "Treatment of Suppurative Peritonitis." He began his paper by relating the theories of the past relative to the causation of peritonitis, and the treatment in vogue, based upon these theories. He referred to Ochsner's views as to the part that peristalsis played in the dissemination of the infection, and to that surgeon's insistence upon the absolute necessity of withholding everything by mouth from the patient. He explained in detail Ochsner's treatment, all of which was aimed at the prevention of peristalsis. Dr. Percy showed that there were three basic principles which must be recognized in the treatment of peritonitis. First, to limit the spread of the infection, by Ochsner's method; second, to provide for the escape of the infection; third, to establish physiological elimination actively. The second principle is obtained when free openings are provided. These are important, not so much for the escape of the infection as for the relief of tension. The third important principle to be observed in the treatment of suppurative peritonitis is the introduction of normal salt solution by the drop method into the lower bowel, while the patient is in the sitting or Fowler position. The doctor detailed the steps by which the drop method could be successfully used in order to obtain this physiological elimination. The uselessness of evisceration and of the removal of the coagulated lymph from the bowels was insisted upon.

Dr. Percy spoke of the value of enterostomy in the desperate and seemingly hopeless class of cases. Three of these cases were reported, all of which recovered. The Doctor's first case was operated June 6, 1903, before he knew of the paper by Heidenhain before the German Surgical Congress in 1902. Drugs were shown to have no place in the treatment of suppurative peritonitis, and the experimental work of Crile was referred to in this connection. The Doctor closed his paper with the statement that the work of Wright on the "Opsonins" and that of Loswig and Richter and others on "Artificial Hyperleucocytosis," was merely the prelude to the final cure of these cases without the aid of surgery.

The following officers were elected for the ensuing year: President, Dr. J. F. Taylor, Buda; first vice-president, Dr. C. F. Horner, Tiskilwa; second vice-president, Dr. W. C. Griswold, Princeton; secretary-treasurer, Dr. O. J. Flint, Princeton. Dr. Owens spoke of the coming meeting of the North Central Illinois Medical Association, which the Bureau County Medical Society has invited to meet in Princeton, and moved that each member of the society be assessed $1.00 to defray the expenses of the meeting. The motion was carried. Dr. Owens moved that a vote of thanks be given the non-members, Drs. Percy and Robison, for their kindness in presenting a paper. The motion was carried.

COOK COUNTY.

CHICAGO MEDICAL SOCIETY.

A regular meeting was held Nov. 11, 1908, with the President, Dr. Alfred C. Cotton, in the Chair. Dr. A. J. Ochsner reported a case of splenomegaly, the pathological features of which were presented by Dr. Louis Hacker. Dr. Joseph C. Beck read a paper entitled "The Bismuth Paste Treatment in Ear, Nose and Throat Affections, with Report and Presentation of Cases, Radiograms and Specimens." The discussion was opened by Dr. Henry Gradle and continued by Drs. A. J. Ochsner, Emil G. Beck, J. H. F. O'Neill, William L. Ballenger, A. H. Andrews, and in closing by the essayist. Dr. B. C. Corbus read a paper entitled "Erosive or Gangrenous Balanitis—a New Venereal Disease." This paper was discussed by Drs. F. R. Zeit, Fred G. Harris, J. F. Hultgen, and in closing by the essayist. Dr. Henry B. Hemenway read a paper entitled "Public Duties of Physicians." *

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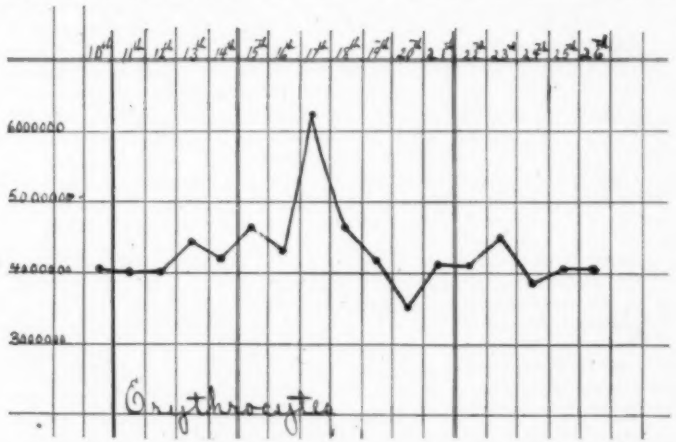
* For text see page 37.

SPLENOMEGALY.

Dr. A. J. Ochsner:—This is a specimen of a spleen in a case of splenomegaly. The specimen weighs seven pounds, is sixteen times the normal size, and the largest spleen that I have ever removed.

There are a few points in connection with the removal of spleens which are of importance to those who undertake this operation. There are operations like hernia operations, hysterectomy and thyroidectomy that have a definite technic, and among those surgeons who remove spleens there is a more or less definite technic. The points to be remembered in removing a spleen are these: The spleen itself is brittle, consequently the manipulations must be gentle. The veins entering the spleen are extremely thin walled but large, and consequently hemorrhage is very severe. In the control of hemorrhage lies the secret of the entire operation, so that in approaching the spleen one should begin from below, and first dispose of all the blood vessels which enter it through the peritoneal attachment, and isolate the splenic artery and vein, grasping these separately. After these have been severed, the next important point is the upper attachment. The spleen is frequently adherent above. In this case it was adherent to the



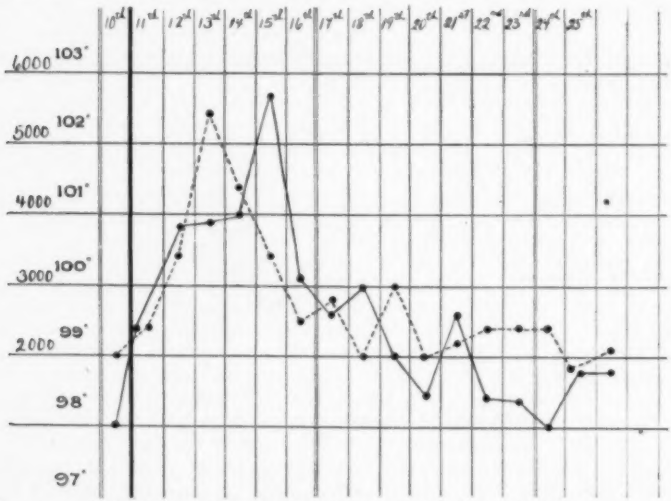
stomach at this point, it received a portion of its blood supply from the gastro-epiploic vessels, and there is where one is liable to make two mistakes. One error from hemorrhage again, and a second error from injury to the stomach. Both of these, if you will appreciate them, can be easily avoided. The late result from injury to the serous surface of the stomach is easily corrected by folding in. If one applies these principles, he will find that splenectomy is as safe as hysterectomy or any other major surgical operation, provided the patient is not suffering from leucocythemia. If the leucocytosis is higher than 50,000, it is a dangerous operation; if below that, or at least if below 10,000 or 15,000, it is very safe. The weight of this spleen was seven pounds. Seven ounces is the weight of the normal spleen, so that this spleen is sixteen times the normal weight.

I will now ask Dr. Hacker to speak of the pathology of the case.

Dr. C. W. Louis Hacker:—This spleen was removed this morning from a patient, 35 years of age, who weighed about 125 pounds. It projected downward, and 5 centimeters to the right of the umbilicus. There were numerous bands of adhesions present about the hilum connecting it with the cardiac end of the stomach. The peritoneum elsewhere was perfectly smooth. Over the anterior surface of the upper pole the peritoneum was somewhat thickened and opaque. As Dr. Ochsner has stated, this spleen weighed seven pounds, or it is

sixteen times heavier than the normal spleen. The diameters are 33, 15 and 7 centimeters. The consistency of this spleen is subnormal, especially in the lower pole. On exposing the spleen we found that the veins were markedly dilated, especially the splenic vein, which measured approximately 2 centimeters in diameter. There was no evidence of ascites present in the peritoneal cavity, and the liver was perfectly normal. There were no enlarged lymph nodes. This is a case of primary splenomegaly. We were unable to find any etiologic factor. The blood was carefully examined, and we found no evidence of malaria. Last night a blood count was made and we found a leucopena, that is, we found 2,000 leucocytes, 75 per cent. of which were lymphocytes. The number of red cells was 4,080,000; hemoglobin, 80 per cent. Six hours after operation another count was made, at which time we found 2,400 leucocytes and 4,000,000 red cells; hemoglobin was approximately 80 per cent. There is no evidence of syphilis in the patient, so that we think we can exclude that as an etiological factor; in fact, there is very little known about the etiology of this disease.

Warthin, in 1903, before the Association of American Physicians, called attention to cases in which there was found no calcification, with stenosis of the



Solid line represents temperature; dotted line, leucocytes.

portal vein. Hocke, in 1902, published a paper in the *Berliner Klinische Wochenschrift*, in which he reported a case with autopsy findings, and he thinks these cases are due to congenital lues.

NOTE.—Since the operation the blood has been examined every day, the results of which are indicated on the accompanying charts and table.

Date.	Temperature.	Leucocytes.	Erythrocytes.
November 10	98	2,000	4,080,000
November 11	99 4/10	2,400	4,000,000
November 12	100 8/10	3,400	4,000,000
November 13	100 9/10	5,400	4,510,000
November 14	101	4,400	4,210,000
November 15	102 7/10	3,400	4,640,000
November 16	100 1/10	2,500	4,380,000
November 17	99 6/10	2,800	6,120,000
November 18	100	2,000	4,620,000
November 19	99	3,000	4,200,000
November 20	98 4/10	2,000	3,590,000
November 21	99 6/10	2,200	4,090,000
November 22	98 4/10	2,400	4,070,000
November 23	98 4/10	2,400	4,525,000
November 24	98	2,400	3,854,000
November 25	98 8/10	1,800	4,110,000
November 26	98 4/10	2,100	4,110,000

Dr. Joseph Beck read a paper entitled "The Bismuth Paste Treatment in Ear, Nose and Throat Affections, with Report of Cases, Radiograms and Specimens."

DISCUSSION.

Dr. J. Rawson Pennington:—I think Dr. Beck is to be congratulated on his most excellent paper. It shows study and careful observation. While I have had no experience with this paste in the treatment of sinuses and fistulæ of the nose and ear, yet I have had some experience with it in the treatment of rectal fistulæ and would like to record my observations, as I believe that that which is good in the treatment of such conditions in one part of the body should likewise be valuable in the treatment of similar conditions in other parts.

Judging from apparent results in treating 19 cases of rectal fistula, with this paste, I consider it a valuable discovery. In 14 of the 19 cases which I have treated the discharge has ceased and the fistulæ are closed; and, to the best of my knowledge, they are well. In one of them I could and did pass a probe through the external opening, which was near the anus, upward and backward between the rectum and sterum to a point about opposite the promontory of that bone.

I question whether any surgical operation looking to a complete division of that tract would have been justifiable. Moreover, he likewise had an abscess in the left groin which probably communicated with this fistula, though it was not demonstrated. About three ounces of the paste were injected into this fistula at the first sitting. It is now closed, and he has had no discharge from it for more than two weeks.

Dr. Henry Gradle:—The excellent results obtained by Dr. Emil G. Beck by the injection of tubercular and other nuses with bismuth paste ought to tempt specialists in our line of practice to apply the same treatment to suppurations within the nose and accessory cavities, as well as the ear. The painstaking work Dr. Joseph Beck has done in this line and reported to-night is very promising, but the conditions are not the same as in the original surgical field. In Dr. Emil Beck's cases he dealt with collapsable walls, with sinuses having either one exit only, or if there were multiple exits, they were easily closed; and furthermore, he dealt with cavities not lined by mucous membrane or by epithelium. All these conditions are different in suppurating spaces within the nose, its accessory cavities, or the ear. Now whether under these circumstances the bismuth paste treatment will lead to results superior to what we are accustomed to obtain by other methods can only be learned by experience, as Dr. Joseph Beck has attempted to prove,

Personally, my own experience has been extremely limited. I have had two cases of dacryocystitis in which the results were satisfactory. In one the cure was effected more rapidly than I believe I could have obtained by other methods while the other was nearly cured in a short time when the patient left the city. I have treated two cases of persistent discharge from the middle ear, one after a radical operation, the other after a simple mastoid. Both of these cases however were total failures.

On mechanical principles the treatment does not particularly appeal to me as applied without preliminary operation to the complicated and labyrinthine system of spaces adjoining the nose or surrounding the middle ear. I do not believe that they can be fully filled with the paste through the natural or even an artificial opening.

The tables published by Dr. Beck are not convincing that he has obtained better results in non-operative cases than he could have obtained by the usual well tried methods. Of course one cannot tell from his tables, nor even by reading his paper, which I had the privilege to do, whether his results would have been as quickly secured by other methods. There may be individual instances in which his results were superior to what he might have expected from other treatment, but from a general perusal of his paper I was not at all convinced that in the non-operative cases the treatment has any particular merit over the

customary methods. It may be different, however, in the operated cases. As I have not had personal experience after operations perhaps I had better not trespass on the time of the society by giving mere opinions. But the rapidity with which some of his cases healed and the fact that we are now able after the operation to inject a cavity thoroughly with the paste and to occlude its escape, would lend probability to the view that this is a valuable dressing for operative cases in the various forms of suppuration and that this treatment may hence prove a distinct improvement over the dressings heretofore applied.

Dr. A. J. Ochsner:—I have had the privilege of using this method in general surgical cases. Dr. Emil G. Beck kindly discussed this matter with me after he prepared his first paper on the subject, and seeing the results of his cases and the class of cases in which this form of treatment is indicated, I was impressed very forcibly and deeply with its value, and immediately made use of the method in some twenty cases of old tuberculous sinuses that I had under my care at that time. The possibility of application of bismuth paste is so great, the proportion of satisfactory results so large, that I look upon the use of the bismuth mixture in appropriate cases as the most important advance in surgery that we have had during the past two years.

We have applied the mixture in practically every part of the body, with the exception of some special parts, like the nose. We have had old empyema cases that had been operated and reoperated many times, with communication with a bronchus, and within six or eight weeks these cases have healed and have remained so by the use of the bismuth mixture. We have had a case of fistula leading down to the pancreas from gastrectomy which persisted in discharging, and which healed after a few weeks following the injection of the bismuth mixture. We have had cases of prostatectomy, with persistent fistulæ, that have been treated with the bismuth mixture, with satisfactory results. We have had two cases of tuberculous sinuses leading down to tuberculous kidneys, in which we have effected a cure. One of them gained forty pounds since the first injection. And so throughout the field of old tuberculous sinuses the proportion of satisfactory results has been so great, the application so simple, and the number of cases—cases which were formerly considered hopeless—so large that I look upon this as one of the very best things we have in surgery. Patients with tuberculosis of the spine, psoas abscess cases which formerly developed a septic condition and died within a few months, have picked up, gotten well, and remained well following the use of the bismuth mixture.

Dr. Emil G. Beck:—The introduction of bismuth paste in the treatment of ear, nose and throat conditions will be no doubt of great interest to those who are engaged in that work, and they will soon convince themselves that the picture which my brother has drawn of his results is not exaggerated. On the contrary, he has had even better results than he has reported to-night. I have watched his work with great care, and I am careful not to make any extravagant statements.

From the standpoint of general surgery, I believe in his after-treatment of acute mastoid disease, namely, using the paste as a dressing after operation, is the best thing my brother has demonstrated to-night. When he began I was certain he would have some good results, but had no idea that the method would be applicable to so many conditions in which he has applied it. In fact, I warned him in the beginning not to use it in any of the accessory sinuses, fearing some of the paste might enter, through some anatomical abnormality, the cranium and produce compression. However, he has shown by a large number of cases that no bad results follow, provided one is familiar with the anatomy and the technic of the method. The method certainly commands a fair trial by others in the class of cases he has reported. In the cases he has treated, however, we must remember that hardly any of them are tubercular, while 80 per cent. of the cases in general surgery are tubercular. This fact will insure a more lasting future for the non-tubercular case, because we are entering upon an era in which sinuses due to tuberculosis will not be met with as often in the

future as they are at the present time. In the first place, we have the killing off of tuberculous cattle; we have vaccine therapy, and the fresh air treatment of tuberculosis, and these will prevent many cases from going on to the stage of abscess formation, and if an abscess should form we have the method which I have outlined to prevent secondary infection, and in that way prevent the formation of a sinus. I hope the time will come when sinus formation will be looked upon as a medical blunder, the same as we consider to-day post-puerperal sepsis.

I feel that this is a good opportunity to sound a note of warning in regard to bismuth poisoning. There are two varieties of bismuth poisoning. One is where the bismuth has been given by the stomach in from forty to sixty gram doses for outlining the stomach and intestines. This form of poisoning has been reported from Europe from many of the clinics there for the past year or so and is known as nitrite poisoning. The nitrites are liberated from the intestines and death quickly follows. In the other form of poisoning we have absorption of the bismuth from the injection of say more than one hundred grams of paste. The absorption of the bismuth may go on slowly and produce entirely different symptoms. It will not produce hemoglobinemia due to the nitrite poisoning, and no death has been reported due to that cause, except that Kocher reported several cases in 1882. I reported what I thought was a case of this kind before the Chicago Pathological Society recently, but in the discussion I was assured that death was not due to bismuth poisoning, but bismuth intoxication, death being due to another cause.

At this time I desire to thank Drs. A. J. and E. H. Ochsner, who have helped to inform the medical profession of the value of the method of bismuth vaselin injection, and have thereby assisted me in accomplishing what probably would have taken years for me to accomplish.

More than to anyone I am indebted to my brother, Dr. Carl Beck, who has not only guided me in my experiments but who first employed and advised me of the bismuth vaselin paste injection for diagnostic purposes, the method which later on led us to the discovery that the injections were also of great therapeutic value.

Dr. J. H. P. O'Neill:—One dose of amber vaselin injected into a guinea-pig will reduce the bacteria in the intestines 33 per cent. Dr. Biehn and I proved this by some experimental work we did some two years ago. One dose will kill from 30 to 40 per cent. of the bacteria in the intestines. Now, perhaps the bismuth paste affects the bacteria in these sinuses, so that the cure may not be due entirely to the bismuth.

Dr. William L. Ballenger:—I have had a little experience in the use of bismuth paste during the last two months. I have used it in about 25 cases, all of which have been ethmoidal except one, and in this I used it in the frontal sinus, and in one antrum case. I have not used it in any ear cases, nor in any cases except as a postoperative treatment. Personally, I must say frankly, I have not been able to notice any advantage in this treatment over the methods formerly used by me. I am still persisting in its use and am trying to perfect my technic, and I hope in this way to get better results.

In studying Dr. Beck's tables, like Dr. Gradle, I am not impressed that there is any particular advantage in this treatment except in the mastoid cases, over other methods. For instance, in chronic mastoid cases where we have done a radical mastoid operation, of which Dr. Beck reported a number of cases to-night, we are accustomed to expect a cure from a single operation—at least, I am, and I think most operators make that claim. Dr. Beck effects his cures by the use of the bismuth paste, Now, the question arises whether he would not have gotten these cures without the bismuth. That, of course, we do not know. My small experience has not been of such a character as to impress me with the fact that bismuth paste in these sinus cases is particularly advantageous.

Only yesterday I did a turbinectomy, with partial removal of the ethmoid, and filled the nose full of paste, put in an anterior plug of cotton to retain the

paste, and the patient had a severe hemorrhage; although Dr. Beck makes the claims that one of the uses of the paste is to prevent hemorrhage. This is the only case in which I have had hemorrhage following the use of the paste.

I can not say any more on the subject. I wanted to report my personal observations without any particular comment; but I shall withhold my final opinion as to the results until I have had a more extended use of the paste.

Dr. A. H. Andrews:—I have had only a limited experience in the use of bismuth paste. I have used the paste with very satisfactory results in a few post-operative sphenoids, two cases of antrum of Highmore disease and a number of radical mastoids, in which the paste was used as an after dressing. I have had a number of cases which have not been operated upon in which I was not able to obtain satisfactory results from the use of the bismuth.

Dr. Beck speaks of injecting the bismuth paste in chronic suppuration of the middle ear. I have not done this for the reason that I have been afraid to do so.

In doing mastoid work I have frequently found a dehiscence in the upper wall of the attic or antrum, and I see no reason why if we plug up the middle ear, the attic or aditus, while the suppurating process is going on in the antrum, if a dehiscence is present we may not have more trouble than we anticipate. So far I have not been able to diagnose conditions in the roof of the attic and antrum with sufficient accuracy to feel justified in employing the paste in chronic suppurations of the middle ear. I am also afraid to use it in disease of the sphenoid cavity unless I have removed the anterior wall and demonstrated that there is no communication with the cranial cavity.

Dr. Beck (closing the discussion):—I wish to thank the members for their free and liberal discussion of my paper, because it is well for us to get the unfavorable as well as favorable results from this treatment.

I appreciate the note of warning sounded by my brother, as well as the other gentlemen, as it is desired.

Most of the gentlemen who have spoken have had but a limited experience with this treatment in comparison with the number of cases I have had the opportunity of seeing and treating; hence they can only speak in a limited way of what may or may not be facts. I have treated 319 cases without any ill result. I have treated a large number of different conditions. For experimental purposes only, for instance, I have treated a large number of cases of hypertrophic rhinitis and of tonsillar affections; not with the idea of curing these affections but to improve the condition if possible. I have had some irritation of the labyrinth. In one case of chronic suppuration of the middle ear with a fistula of the posterior semicircular canal, but with moderate pressure and watching the patient carefully, I could see that the patient was not having any trouble during the injection, and I wanted to get the bismuth into the fistula that was present. It was my desire to cure the condition by this method, and I succeeded. Nature had evidently walled off sufficiently to allow of the amount of pressure I use and prevented the paste from getting into the membranous semi-circular canal and causing grave complication. I am very careful in using the bismuth paste in all such cases. There are cases I have not treated by this method because, like Dr. Andrews, I have been afraid.

So far as taking off the anterior wall of the sphenoid is concerned, I do not do that. I take off as little as possible; I just make an opening sufficient to introduce the cannula, because if you take off the anterior wall the bismuth will fall out; it will not stay in, consequently you do not get its action, and only in those sinuses that retain the bismuth do we get results.

Dr. Gradle referred to my tables. I do not claim any great results from non-operative cases. I stated in my paper that of the large number of cases I have treated without at least a middle turbinectomy and puncture at inferior meatus the results were *nil*, because the bismuth does not enter infectious areas without this procedure. So it is with the suppurative ears he treated, with no results. He did not get the bismuth in.

In answer to Dr. O'Neill, I have used vaselin alone, and so have others, and have failed to get any effect from it either in nose or ear suppuration.

With regard to the remarks made by Dr. Ballenger, he has not perfected his technic. I had the same trouble before I improved my technic. The glass syringe we use to force bismuth into the nose will not enable us to reach the accessory cavities of the nose.

With regard to the nasal dressing, patients must not be allowed to walk after the injection of bismuth, because in walking the bismuth drops into the patient's throat, and therefore hemorrhage occurs thereafter. I place my patients in bed after nasal operation and injection with bismuth as a dressing, and there is no hemorrhage.

Dr. B. C. Corbus read a paper on "Erosive or Gangrenous Balanitis a New Venereal Disease."

DISCUSSION.

Dr. F. R. Zeit:—I think Dr. Corbus is justified in claiming this as a fourth venereal disease in view of the distinct clinical history of these cases; in view of the marked destruction of the organ due to gangrene, much more marked than in any other venereal disease, and in view of the bacteriologic findings which are quite distinct from those in the other venereal infections. He seems to attribute less importance to the spirochete he found than to the vibrio.

Two years ago von Prowazek and Hoffman claimed that the spirochæta balanitidis is the cause of erosive and gangrenous balanitis. It is a well known fact—and my experience of many examinations for the spirochæta pallida in different parts of the body confirms it—that wherever you have gangrenous conditions about the body you find a symbiosis of two forms of micro-organisms. The one is a spirochete which is more or less similar to the pallida, the syphilis spirochete, and, second, a vibrio-like organism. The findings are the same as those in noma; the same as those found in gangrenous stomatitis; the same as those which we find in gangrene of the lung and malignant tumors, as carcinoma, and the same as we find also in various ulcerative conditions of both the small and large intestines and in Plaut-Vincent's angina.

The question is, What is the organism which the author of the paper designates as a spirochete, and which Hoffman says is different from the spirochæta refrigens, being much more delicate, and having much closer and more regular spirals than the spirochæta refrigens? If we examine a section of gangrene of the lung we find two organisms in the tissues which show exactly the same morphology as the bacterial smears from cases of balanitis gangrænosa, a vibrio and a spirochæta. I have given Dr. Corbus a Levaditi-stained section from one of the cases of gangrene of the lung I examined, in which can be seen siprochætes in great number which resemble the spirochæta pallida somewhat. In other parts of the sections large clumps and clusters of the vibrio are seen. The essayist has explained how this disease may be produced by unnatural sexual intercourse; but we must not forget that spirochætæ of the same morpholgoy are found in gangrenous conditions everywhere about the body, although it must be admitted that those found in gangrenous balanitis have the same morphology as those found in mouth fluids. In the mouth fluids we have the eel-shaped spirochæta buccalis, which is not infrequently found in gangrene of the lung. We have a very minute organism with close spirals, the spirochæta dentium, and a third type of spirochæta which is hard to distinguish from the spirochæta pallida and corresponds to the descriptions of Hoffman and Prowazek of the spirochæta balanitidis. Muehlens calls this type of spirochæta, when found in mouth fluids, the "intermediate type," intermediate morphologically between the spirochæta buccalis and the spirochæta dentium. It is not often found in mouth fluids and I have called it the pseudopallida. With Giemsa the spirochæta buccalis stains blue, the spirochæta dentium red and the spirochæta pseudopallida bluish red. The spirochæta balanitidis also stains bluish red with Giemsa.

I think the clinical picture, together with the bacteriologic findings in these cases, could well lead one to think that we have here a fourth venereal disease; but the possibility of this spirochæta getting to the genital organs in other ways

than those of unnatural sexual intercourse exists, and it must not be forgotten that mouth spirochætæ are found in large numbers in ulcerative conditions of the small and large intestine. Gangrenous balanitis has been experimentally produced in man and monkeys by inoculation of the preputial sac with mouth fluids. In all gangrenous conditions, everywhere about the body, with the production of bad odors, we find spirochætæ of the pseudopallida or buccalis type and vibrios, growing in symbiosis and under anærobic conditions.

Dr. Fred. G. Harris:—I have nothing particular to add to what Dr. Corbus has said in his paper except to emphasize the point that we are dealing here with a distinct clinical entity. It is clinically and bacteriologically different from chancroidal infection; it is different from herpes, and different from other forms of balanitis. Clinically the symptoms are very marked. First, there is marked edema, and this form of infection seems to predispose to marked exudation. The penis may become of a dark-red color, producing complete phimosis. This marked edema combined with the toxins of the organisms leads often to gangrene. It is true, we have the milder forms of the disease, simple balanitis, the erosive or mild ulcerative type. Occasionally we get the severe gangrenous type, as in the case reported by Dr. Corbus, where the whole duration from the time of exposure until the loss of the penis was only thirteen days. In these cases there is no gas-forming bacillus. The milder cases are not at all uncommon. Of the cases with the gangrenous form at the Cook County Hospital we probably have six a year, showing that it is necessary to distinguish between chancroidal infection and infection with this organism, the treatment being entirely different.

Dr. J. F. Hultgen:—I am very glad that Dr. Corbus has called our attention to this condition as a distinct clinical entity. Clinically, as well as bacteriologically, it can be easily distinguished. I would object, however, to calling this a new disease, for the reason that a good many years ago (1898) Vincent spoke of it and distinctly demonstrated it under the name of symbiose fuso bacillaire. At that time he was a military surgeon. As a rule, it is not a balanitis, but a balano-posthitis, the two layers of foreskin being affected. Since I came back from Paris I have had eleven cases in my own practice. I showed some cases before the Stock Yards Branch of this society, and the secretary here will probably remember them. To Vincent belongs the credit and priority for bringing this disease before the profession.

Dr. Zeit thinks a good deal of symbiosis of the various organisms, and I fully agree with him. Regarding symbiosis of these two organisms we find it more often than we are accustomed to look for it, in other conditions besides balanoposthitis. I also agree with Dr. Corbus in that we ought to look more for it in all gangrenous conditions everywhere, in the intestines as well as in the lungs and in the mouth. We do not know anything about anaërobic bacteria anyway.

The diagnosis of this condition is easy. In fact, patients come to the physician very early, as early as the second day, or most of them come on the third day, with a profuse dribbling from the preputial opening. There is no other discharge so profuse and so nauseating as this one.

The treatment is very simple. All we have to do is to get a little air or oxygen under the prepuce and if the patient can retract it a cure can be effected over night. The ulcers on this semi-mucous membrane get well by themselves without special treatment.

Dr. Corbus (closing the discusssion):—In 1889 Batailla and Berdal first described la balano-posthite erosive circinee. In 1904 Sherber drew an analogy of this form of disease and other forms, and in 1904 he designated this as a fourth venereal disease. He designated two diseases as having the same clinical entity. I do not set myself up as proclaiming this to be a new disease, but only reported what Sherber and Mueller have said regarding it, and they have proven conclusively that this gangrenous form is a relative sliding along the scale of a severe form of infection recognized for some fifteen years, but not recognized as a clinical entity along with the gangrenous form.

Regular Meeting, Nov. 18, 1908.

A regular meeting was held November 18, 1908, with the president, Dr. Alfred C. Cotton, in the Chair.

Dr. Willis S. Anderson, Detroit, Mich., read a paper, by invitation, entitled "Nasal Obstruction: Experimental Study of Its Effects Upon the Respiratory Organs and the General System," which was illustrated by numerous stereopticon slides.

Discussed by E. Fletcher Ingals, William L. Ballenger, Joseph C. Beck, Charles M. Robertson and Edwin Pynchon, and in closing by the essayist.

Dr. Gustavus M. Blech read a paper on "Orchidopexy," which was discussed by Gustav Kolischer, Louis Thexton, Arthur Dean Bevan, Carl Beck, and in closing by the essayist.

Adjourned.

NASAL OBSTRUCTION: EXPERIMENTAL STUDY OF ITS EFFECTS UPON THE RESPIRATORY ORGANS AND THE GENERAL SYSTEM.

WILLIS S. ANDERSON, M.D.
Laryngologist to Harper Hospital.
DETROIT, MICH.

(Abstract of an address delivered before the Chicago Medical Society, Nov. 18, 1908.)

The writer has been interested in the clinical phase of the subject for many years, and believes that even a moderate degree of nasal obstruction plays an important part in the etiology of disease. The preliminary report outlines the effect upon animals of the artificial closure of the nostrils. Dogs, rabbits and guinea-pigs were used in the experiments. The nostrils were closed either by denuding the surface and suturing the edges, or by sealing with cotton and collodion.

Dissections showed the difference between the throats of animals and man. The nose, throat, larynx and trachea are more nearly on a straight line in the lower animals. The larynx is placed higher in the throat, and the epiglottis is readily seen in the dog and rabbit extending up in front of the soft palate. These peculiarities favor nasal breathing and make mouth breathing difficult. Experiments proved that dogs do not breathe through the mouth as readily as is commonly believed. Dogs with less than one-fourth of the normal space will breathe with their mouths closed.

Lungs of laboratory animals were studied in order to ascertain if they were frequently diseased. It was found that the proportion of diseased lungs in the guinea-pigs was very small. Rabbits frequently have a catarrhal discharge from the nostrils accompanied by changes in the lungs. Such rabbits were not used. A tabulated report shows the effect upon twenty-seven guinea-pigs when both nostrils were closed. All but three nostrils were closed by cotton and collodion without the use of an anesthetic. The pigs that lived over forty-eight hours breathed a little through the nose. It is exceptional for a pig to live more than thirty-six hours with both nostrils closed.

Distention of the abdomen is marked, as a rule, in the pigs that have both nostrils tightly closed. This is due to swallowing the air. The distention is more marked when the intestines are filled with food, and can be lessened by fasting the animal. Distention in some instances seems to be a contributory cause of death, but not the essential factor. Rupture of the stomach occurred in one pig, with distention and death within two hours.

Another table shows fifteen guinea-pigs with one nostril closed. Twelve of the pigs had the right side closed and three had the left side. Two lived eight months with the one side entirely closed. Two died within twelve hours; but it is probable that the other nostril was accidently filled with collodion, as the pigs appeared similar to the ones with both nostrils closed. Eight died on an average

of 9¾ days. Three lived thirty days, but in each instance the closed side partially opened. One lived only five days. This pig had one nostril closed before, but it sloughed open. Probably the resistance of the pig was lowered by the former experiment.

Ten rabbits with one nostril closed were reported. The longest duration of life was 113 days; the shortest, 4 days; the average, 43.6 days. Distention of the abdomen was not present as a rule. Death resulted when about one-half of the weight was lost.

In those instances where the hearts of the guinea-pigs and rabbits were examined they were regularly found to have dilatation of the right ventricle. This was especially so in those that had both sides closed or nearly so, and lived from two days to a week. There is some evidence to show that hypertrophy will take place if the animal lives a number of weeks with obstructed nasal breathing. Hearts from normal animals of nearly the same weight were used as controls.

The nostrils of a number of dogs were closed. As a rule one side was entirely closed, or an opening the size of a pin head remained. The other side was about one-half or two-thirds closed.

The following constant results were noted in every instance: Dyspnea present in all of the dogs. It was more marked in the younger dogs, and in a general way was proportional to the degree of obstruction. The breathing was characteristic of asthma and emphysema, with an apparent enlargement of the chest, and retraction of the intercostal spaces. The hair became shorter, thinner and lighter in color, and a dandruff-like scurf was noticed. The general nutrition was affected, and as a result of the lowered resistance some died of an acute infection. These animals showed progressive loss of weight. Those that did not die of infection remained of nearly the same weight, although the appearances of the dogs were changed. They were less active, and the hair, besides becoming thinner, lost its gloss. A peculiar wrinkling of the skin was noticed in several of the dogs. The offspring from mothers with nasal obstruction showed lowered vitality. Some were born dead, and others after a few weeks lost their hair, emaciation increased and death resulted. The blood of one mother and six puppies was examined. The changes were the characteristic picture of secondary anemia.

The five dogs that died in comparatively short time after the nostrils were closed all had disease of the respiratory tract.

There were histologic changes in the lungs of the guinea-pigs and rabbits. Some showed the alveoli and smaller bronchi filled with blood; others an intense congestion, with infiltration of the interstitial tissue with blood. Emphysema was a characteristic picture in a number of instances. Inflammatory exudation was present in a number of sections. A large majority of the lungs examined showed positive changes.

DISCUSSION.

Dr. E. Fletcher Ingals:—I wish to congratulate the author of the paper upon the perseverence and patience he has exercised in carrying out these experiments with the hope of doing something which will be of benefit to medical science. He has demonstrated one or two things that are certainly of interest and that will assist us in the care of our patients. He has shown graphically the effects of gradual asphyxiation. He has told us that dogs and guinea-pigs do not breathe through the mouth, even though the nares are closed, excepting a very little. We have essentially the same effect in one of these animals from closure of the nose that we would in man by closure of the trachea or larynx. With the shutting off of the air the strength gradually declines and we have early pathologic changes such as are shown in these pictures. One point of interest is that these dogs breathed fairly well when they had only one-quarter of the normal space. I think a great many human beings do fairly well with much less space

than they should have, but the conditions are very different because the human animal, under certain conditions at least, will breathe through the mouth practically as well as through the nose.

The poor condition of the puppies in the case of the dog that looked so much worse after the Doctor's treatment is very suggestive, notwithstanding that the puppies were carefully fed. It shows that the shutting off of oxygen from the mother caused very weak progeny. They seem to have been in practically the same condition as the mother when five or six weeks old, although they had all the air and all the food they wanted.

The points brought out by the essayist with reference to the breathing of the dog and guinea-pig will be of much value to future experimenters. In endeavoring to find out what the effects of nasal obstruction might be upon man, it must be remembered that guinea-pigs and dogs will not breathe through the mouth, therefore the conditions are very different from those in man with nasal obstruction. I have not had laboratory experience in this direction, but I believe that much may be learned by such experiments, though it often takes thousands of experiments to demonstrate a single point, but this is expected by laboratory men, and this adds greatly to their credit. Anything we can learn from experimentation on the lower animals which will ultimately be of benefit to mankind will be a great gain.

My experience in the treatment of human animals suggests some points to me, although they are not strictly to the point in discussing a paper on experimentation on animals. I want to say, however, that I do not think there is any justification for removing obstructions in the noses of healthy people so long as those obstructions do not materially interfere with respiration. There are some laryngologists who are accustomed to cut off all spurs from all septa, forgetting that these spurs occur in fully 50 per cent. of all human beings. Some of these practitioners, when they find a septum slightly bent, think it should be removed. There are those also who often remove the turbinated bodies. Much operating is done in the nose that is not justifiable. Many healthy individuals breathe fairly well with half the space that we would consider desirable, and I think the majority would breathe very well with three-quarters of what we would consider normal space. The common symptoms of colds, hawking, coughing and raising mucus in the morning, are usually due to obstruction of the nose. Hoarseness is, in the majority of cases, primarily due to the same cause. This condition causes the patient to breathe through the mouth at night, which causes congestion of the larynx, or perpetuates laryngitis from which he would quickly recover if he breathed continually through the nose.

It has been my observation that patients seem to be less affected by constant obstruction of the nose than they do by temporary closure. Perhaps I ought not to put it so flatly, but certainly we find patients with the nose almost completely obstructed by polypi who have breathed through their mouths for many years, and who still seem vigorous in every way. Other patients, with partial obstruction, try to breathe through the nose, but do not get sufficient air, perhaps only half as much as they are entitled to. In these, although the general condition may appear good, we often find the vitality low. Changes in the larynx seem more frequently in patients where there is a temporary obstruction of the nose than when it is permanent. Apparently when obstruction is permanent, the larynx gets accustomed to the cold air and the patient takes in so much air through the mouth that the general health is not so greatly impaired. A patient with permanent obstruction of the nose may get all the air he wants through the mouth, while a person with a temporary obstruction part of the time is under much the same condition as the dog with the nose partly closed. It has been my observation that the relief of nasal obstruction, particularly in children suffering from adenoids and enlarged tonsils, has been followed by wonderful changes in the general condition of the patient; an improvement of about 30 per cent. within six months in a large number of patients will be observed.

Neuralgias over the frontal sinus or cheek and even occipital neuralgias are sometimes due to obstruction in the nares and may be cured by removing the cause of the obstruction.

Dr. William L. Ballenger:—First, I want to ask Dr. Anderson a question, namely, whether he has noticed in sections of the lungs any changes in the endothelial lining of the air vesicles?

The reason I ask this question is, that about ten years ago I saw some sections of lungs made for Dr. Thomas in certain investigations he was making at that time, and to me the observations were interesting. I found, for instance, that where guinea-pigs were breathing dust-laden air in an improvised apparatus for a period of forty-eight hours the endothelial lining of the air vesicles was in many instances two layers in thickness, in others three or four, and in still others as many as twelve layers in thickness, which suggested that mouth-breathing might produce changes in the endothelial lining of the air vesicles which would account for the diminished interchange of oxygen and carbondioxid which normally takes place through the vesicle walls.

Dr. Ingals says he does not believe in removing obstructions in the nose unless they materially interfere with respiration. I believe he would modify that statement somewhat if he thought of the function of respiration. The function of respiration is not simply to furnish oxygen and moisture to the lungs, but a very important function of respiration is to aerate or ventilate, as Dr. Pynchon has expressed it, the accessory sinuses of the nose. There are certain obstructive lesions high up in the nose which would not interfere with respiration at all, but which do interfere with the ventilation of the accessory sinuses and lead to lowered vitality and to infection of those sinuses.

I have been much interested in the thesis of Dr. Anderson, because while he says it is not conclusive, it is suggestive. The broad deduction he makes from his experiments is that there is a lowered resistance of the mucous membrane of the respiratory tract; hence a predisposition to infection and inflammation in various parts of the body. I infer he would include in these inflammations the sinuses surrounding the nose as well as the organs in remote parts of the body, as the lungs, kidneys, and so forth. Of course, in these experiments we have to deal with an acute obstruction which is rather contrary to what we find in practice; hence it is difficult to draw conclusions therefrom. In our clinical experience we rarely find acute obstruction of the nose. They are usually obstructions that have gradually developed, and hence the patient develops a degree of immunity which enables him to tolerate the condition much better than any animal would an acute obstruction. Persons with nasal obstruction may go on in comparatively good health, but it must be remembered that these obstructions are likely to bring about infection and inflammation of the sinuses, particularly where they are situated high up in the nose; whereas if the obstruction is located in the lower part of the nose, we have simply a catarrhal inflammation, namely, a turgescent rhinitis, or hypertrophic rhinitis. This is a point which I was in hopes Dr. Anderson would bring out in his investigations. Unfortunately, from my standpoint, he has only dealt with complete obstruction of the nose. It would be interesting for him or someone to experiment with high and low obstructions of the nose. Anterior obstructions of the nose have a different effect from posterior obstructions, on account of the rarefaction of the air posterior to the obstruction. This rarefaction of the air produces a hyperemia of the tissues, leading to turgescence, and finally to hypertrophic rhinitis. In my clinical experience and observation, the obstructions of the nose which interfere with ventilation and drainage of the sinuses are those that are situated high up, and until the submucous resection operation came into vogue, most of us, I think, were in the habit of neglecting the obstructions of the nose situated higher up, and failed to realize their importance. At least, that was my experience. By the submucous resection of the septum we are able to correct the higher obstructions much more easily than formerly. I have been much impressed with my observations with reference to high obstructions, and I have come to believe that

it is not those obstructions of the nose that interfere with general respiration that are of greatest importance, but that those obstructions which interfere with the proper ventilation and drainage of the sinuses are of much greater clinical importance as they lead to infection and inflammation of the sinuses.

Dr. Joseph C. Beck:—I did not expect to be called on to say anything in reference to this paper, and I do not think I can add anything to it, as I have had no experience with experimental work on this subject. I would like, however, to say a word or two in connection with the effect on the general condition of patients from non-obstructive lesions of the nose, that is, atrophic conditions. A patient may have a cavity large enough to pass a small finger and yet may feel that he does not have sufficient room for full or free respiration. He may not have a sufficient amount of proper air, and as a result such general conditions are noted as have been described. There may be absorption of septic material. It is to be hoped that some light may be thrown on the conditions by experiments which we find in patients who have had atrophic rhinitis and in whom lung changes have subsequently been found. It is not uncommon to find chronic capillary bronchitis and inflammation of the vesicles postmortem in the class of patients that have been referred to. From my personal observations upon partial obstructions of the nose, I have come to the conclusion that complete occlusion of the nose is not necessary in order to have certain injuries or deterioration in the general economy of the individual.

Dr. Charles M. Robertson:—There are a certain number of cases of bronchitis and asthma that are caused by obstructions of the nose. We can divide them into two classes. First, those that are reflex, and, second, those produced by direct obstruction other than reflex. In the reflex cases the trouble is caused by the obstruction being in the upper part of the nostril. I have observed several cases of asthma and bronchitis which were relieved by operative procedures on the lower turbinated body, and the lower turbinated body is not a body, as we understand it, that produces reflex disturbance in the lower respiratory apparatus. It seems to me, that children, who have obstructed nostrils, whether from enlargement of the inferior turbinate, or a marked deviation of the septum low down, or whether they have obstruction in the naso-pharynx or fauces from enlarged faucial tonsils are liable to have chests that are narrow with high scapulæ, and as the result of this these children often develop curvature of the spine. This fact has been well authenticated and should receive the attention of the general practitioner as a preventive to disease of the pneumatic apparatus.

Dr. Edwin Pynchon:—In reading the writings of British writers we often run across the expression, "the breathway" of the nose. In other words, they consider that if the nostril has sufficient patency it is satisfactory. In a study of nostrils we find too much space is just as bad as not enough space, and that practically one-eighth or three-sixteenths of an inch is about the maximum amount of space which we find in any part of the normal nose. If the space is greater than that, trouble ensues, and it does so in this way: the air which is passing through is not in a thin enough column to be exposed to the nasal mucous membrane, and consequently is not warmed the same as it would be if passed through a passage more narrow. Furthermore, the larger stream of air does not absorb sufficient humidity from the mucous membrane lining the nose, and consequently is not as well prepared for the lungs. To all intents and purposes, if each nostril consisted of a slit reaching, we will say, from the chin to the forehead, five inches long, and one-eighth of an inch in width, the probabilities are a slit of that style and shape would carry out the normal functions of respiration as well as the nostril in the shape that it is, but for various reasons Nature has seen fit to give us a differently shaped nostril. At the time patency of the nostril is present you may get enough air through the lower part of the nose, while there is a higher part of the nose through which the air does not go. As secretions form in that part of the nose just the same, and as the air does not pass through, those secretions are not evaporated, but deteriorate into a catarrhal discharge, therefore an obstructed nostril is a detrimental condition which must not be overlooked.

As regards these innocent little spurs that some do not like to remove, I have had occasion to examine a good many nostrils, and I do not find a nostril decorated with spurs which is also blest with a normal color of the mucous membrane. In other words, these spurs, even though they do not produce obstruction, produce something which is just as detrimental, and that is deviation of the air current which strikes the spur first and is then caromed off so as to strike the opposing turbinal. The deviated air current in that way has an irritating effect on the mucous membrane of the nose.

Dr. Ballenger has very nicely expressed my views as regards the detrimental features of occlusion of any part of the nose, particularly an obstruction situated high up, so that I will not add anything to what he has said.

Dr. Anderson (closing the discussion):—I see the trend of the discussion is entirely along clinical lines. I hardly touched on that side of the subject, although it is the phase that interests me greatly. In a few weeks I expect to read a paper before our local society, taking up the clinical side of the subject, and drawing conclusions from my experimental work.

If I understood Dr. Ingals rightly, he interprets my work on dogs a little differently than I do. He spoke of how well the dogs get along in breathing through one-fourth of the normal space; that they are able to breathe through a small contracted orifice rather than open their mouths, perhaps he overlooked the fact that they all show local and constitutional symptoms, and a lack of resistance due to the nasal obstruction. I feel that our patients, just in proportion as they do not breathe through the nose, are prone to have certain pathologic conditions develop. Of course, that brings up the question, What is normal breathing? That is difficult to decide, but when a patient repeatedly catches cold, and has a catarrhal discharge from the nose into the throat, and has more or less huskiness of the voice, one will almost invariably find that such an individual breathes more or less through the mouth. If I understand Dr. Ingals rightly, he believes there are many human beings who breathe through the mouth without suffering any injury. I can not agree with that statement. I agree with him perfectly that a sudden nasal obstruction will produce more marked symptoms than one which comes on gradually. Patients who have gradual obstructions of the nose accommodate themselves to the changed conditions, but they are below par as the result of air hunger.

Dr. Ballenger mentioned a change in the endothelia. This is an interesting point, and it is one in which I have been interested, although I can not now make any definite statement more than to say that the epithelial cells of the alveolar walls are increased in a number of my specimens. I have commenced recently to study the changes in the ciliated cells of the trachea and bronchi. That idea came to my mind last winter, from reading the experiments of Calmette, of France, who has infected lungs through the intestinal tract. Calmette believes, for instance, that anthracosis, instead of being due to the inhalation of dust, is due to particles of carbon being absorbed from the intestinal tract. The committee of the Royal Society failed to confirm his observation. Several Germans who made experiments likewise failed to confirm his observation. Thus some believe that these diseases come from the inhalation of dust; and others that they come from absorption through the intestinal tract. These varying results may be influenced by the changes that take place in the ciliated cells. We know that certain diseases of the respiratory tract are followed by loss of the ciliated epithelium. When the ciliated epithelia are lost, infection probably takes place more readily.

I am trying to make some observations to see whether the ciliated cells are affected by obstruction of the nostrils, and mouth-breathing. Of course, the work will require great technical care, and so far I am not in a position to make any definite statement.

In regard to atrophic rhinitis, I should look upon it as causing trouble in the parts below, partially at least from the air not being properly warmed and moistened, as Dr. Pynchon states. I should say that a too open passage might be just as injurious as a too narrow one.

I wish to thank the members of the Society for the courtesy I have received, and for their free discussion of my paper.

ORCHIDOPEXY; A NEW OPERATION.

GUSTAVUS M. BLECH, M.D.

CHICAGO.

The subject of orchidopexy has received but scant attention in recent surgical literature. When we consider that the incomplete descent of one or both testicles means much to the afflicted individual, not only from the standpoint of physiologic function but also because undescended testicles are apt to become malignant, not to mention the disagreeable symptoms which both ectopia and incomplete descent are frequently responsible for, this step-motherly neglect appears astonishing.

Perhaps the reason is to be found in the many failures which have been experienced in the surgical treatment of this not infrequent anomaly, since Schueler first suggested the operation of orchidopexy.

I shall not annoy you with lengthy repetitions of what can be found in standard treatises on the pathology of undescended or ectopic testis but proceed to consider the operative technique of orchidopexy.

The failures of the simplest method, consisting of cutting down on the displaced organ and fixing the replaced testicle to the fundus of the scrotum, are due to the fact that these fixation sutures can not withstand the tension exercised by the cord. In a short while after the operation these sutures, no matter how deeply placed, are found to have given way and the testis returns to its former anomalous position.

This tension is due to adhesions and to traction on the part of the structures surrounding the cord.

Bevan ingeniously overcomes this by a well-devised plan of liberating the cord from these adhesions. He even does not hesitate to sacrifice the veins, which he considers partly responsible for the shortness of the cord, and a division of which enables the operator to place the cord without undue traction into the scrotal cavity.

If we consider that the undescended testis in individuals over four years old is usually found to be atrophic it seems reasonable, theoretically at least, that such extensive dissection and interference with the blood supply is apt to be followed by still further atrophy, otherwise Bevan's operation would be ideal.

Beck, of New York, suggests an ingenious method. He liberates the cord and testis in the usual way, "dissects a flap from the outer margin of the inguinal ring downwards and turned in such a manner that it can be attached to the opposite layer in a semilunar shape. The band surrounds the testicle like a necktie, the testicle being retained as in a buttonhole."

That this operation produces an alteration in the external wall of the inguinal canal, including the external ring is evident. The testicle is not low down in the scrotum but immediately beneath the newly created external ring. Although Professor Beck looks on either as no objection, I fear very much that this operation, ingenious though it be, is not altogether ideal.

Katzenstein, of Berlin, secures the testicle by a cutaneous flap from the neighboring thigh. I do not think such an operation can be considered ideal for obvious reasons.

Another method that has been advocated is the piercing of the scrotal fundus, pushing the testicle through the opening and holding it there until it is found that the tension has been overcome. This means that the testicle is kept for a time extra-scrotally. This seems to me a decidedly unsurgical procedure.

I present to you a boy over 14 years old, who has suffered from monorchism of the inguinal type. There were prominent subjective phenomena, and the family was anxious to have the anomaly corrected and sent him to the hospital June 30, 1908. I operated on him the next day. The testis, extremely small and tender, as compared with his normal one, could be felt in the inguinal canal about two centimeters above the external ring. An attempt to dislodge the testicle caused intense pain and failed. I exposed the inguinal canal in the same manner as is practiced in the Bassini operation for inguinal hernia. The upper incision does not reach to the internal ring. It did not prove necessary in this case, because I could easily divide the few existing adhesions after widely separating the margins of the divided aponeurosis of the external oblique. The incision was not carried down half way through the long axis of the scrotum and a bed for the testis and cord prepared with the fingers. It was then noticed that there was enough tension to retract the testis no matter what sort of suturing would have been resorted to. In fact, the testicle and the cord were so small and atrophic that, had I not promised to do an orchidopexy, an extirpation appeared to me as the operation indicated.

I decided to fasten the testicle after Beck's method, but modified it in so far that a flap sufficiently long was dissected from the tunica dartos, and after applying this strip around the cord above the testicle in the same fashion as a ligature, fastened the free end of the strip to the attached portion by a few silk sutures. The external wound was closed by a continuous suture of silk, after closing the aponeurosis with catgut. Healing took place per primam.

It is now over three and a half months since the operation, and on examination we find the testicle well retained in the scrotum. The boy has no pain, and except for a trifling infection of the cutaneous wound at its upper part, the result, it seems to me, is ideal. I palpated the replaced testis immediately after the operation before the dressings were applied, and, unless I am greatly mistaken, it seems to me that the organ has become larger. Possibly the increased circumference is due to inflammatory products.

It seems to me that the technique employed in this case should prove of some usefulness in similar cases, especially when the operation is done in early youth, as it should be done.

I can not and do not claim that this, or, for that matter, any other method is applicable to such cases in which the cord is so abnormally short that no method of dissection will enable us to displace the testis. In such cases, of course, castration is to be considered.

DISCUSSION ON THE PAPER OF DR. BLECH.

Dr. Gustav Kolischer:—As a rule, a man is taken at a disadvantage if he is asked to discuss and to theorize on an operation that is new or modified; but the cases of undescended testicle have been so thoroughly threshed out in the recent literature that it is very easy to get the leading points. It seems to me the discussion of this paper may be confined to two points. One is that we must gradually free the testicle so as to make it movable and bring it down to the normal site, and the other is, how to retain the testicle or to make it possible for the testis to stay there. Even the name orchidopexy is entirely erroneous because there is no way of stitching the testicle without a flap to the scrotum if the conditions are not such that the cord or blood vessels are long enough to give way. Any method that makes use of a flap, no matter from what point it is taken, for the purpose of bringing down the testicle and retaining it in the scrotum, must be a failure sooner or later. Even if the stitches do not give way, the scrotum will do so.

It was Bevan, I think, who first pointed out the possibility of bringing down the testicle in a large percentage of cases, saying that it is not due to the shortness of the cord, but to the shortness especially of the spermatic artery and vein. His observations on this subject were backed by physiologic investigations and anatomic research, and he does not hesitate to sacrifice, if necessary, enough of

the blood supply to keep the tissues of the testicle alive, if left at all. The formation of a bed for the scrotum was pointed out by Bevan in an aseptic manner by not incising the scrotum, and the same method was followed by Bayer.

We can only talk about the cure of undescended testicle when it is possible to differentiate the testicle and the cord outside of the inguinal canal. If that is not possible, then operation is a failure, because even for three months in a young individual, or a few weeks in an older individual; the testis will stop outside of the inguinal canal; it will be pulled up into the inguinal canal, and the patient will suffer to such an extent that we have to remove the testicle; consequently, I can not agree with Dr. Blech that the operation he has employed in this case is a success. The testicle is away up close to the inguinal canal, so that it is impossible to differentiate the cord from the testicle in the scrotum. If the vessels are short, no flap, wherever taken, will make this shortness sufficient. A loop is not stretched by placing it from a flap, or by tearing any kind of tissue around the testicle. It is a misconception that it is possible to keep a testicle in the scrotum if the cord or any of the tissues leading down to the testicle are long enough.

Dr. Louis Thexton:—I do not entirely agree with Dr. Kolischer, for the reason that if the testicle is held down for a certain length of time, and not allowed to go back into the inguinal canal, some adhesions will form which will help to keep it down afterward. There is no doubt but that the contraction of the connective tissue draws the cord up, not the vessels alone, but the connective tissue surrounding the blood vessels and making up the cord, and not only the blood vessels but the vas deferens. In a paper which I read (I do not know whether it was an article by Dr. Bevan or not) we were told that in every case of undescended testicle we would find a folding of the vas deferens in dissecting down upon the tissues. I found this in three successive cases after reading that. These were all cases in adults, and I found that condition existing in every one of them. It was not the strength of the vas deferens *per se* which held it up, but the connective tissue which holds the folds of the vas deferens together, and when I loosened that connective tissue from the vas it was not necessary to sever the spermatic vessels because the testicle was easily brought down in position in the scrotum.

In Dr. Blech's case, which is a boy under puberty, and which I have not had a chance to examine yet, we may find the testicle will go up again, but I believe the method he has employed of using something to hold it there will at least help to keep it there for a while. I have not had much experience in these cases, having operated on but five cases. Two of them were children and both were complete failures. The other three were adults, and these were successful. In those three I followed the operation of Bevan exactly, because I operated after he had written his paper. I think it must have been his paper in which he spoke of the folding of the vas deferens. Of course, it is necessary to separate the connective tissue, because there is nothing that will withstand contraction of the connective tissue, whether it is a flap from the thigh or from the scrotum. The scrotum may be inverted by the contraction of the cord, or the new connective tissue may give way before it. My personal experience in operating on young people in this class of cases has not been favorable; but that has not been the experience of others, and while I would be willing to operate upon a child, of the two I would prefer to operate on the adult. There is no great effect produced upon the mind of a patient before the age of puberty, and that is one of the reasons for doing this operation.

Dr. Arthur Dean Bevan:—I think the subject of treatment of undescended testis has been as thoroughly worked out as that of the radical cure of hernia, and I believe we have an operation which is just as successful for the treatment of undescended testis as is the Bassini operation, for instance, the radical cure of hernia. It began with Max Schüller, who pointed out that the most important factor in bringing the testicle down into normal position was the tunica vaginalis, that is, the funicular process, and he divided this transversely just below the

external ring, and then ligated the stump as you would in a hernia, and brought down the testicle, with this divided tunica vaginalis, into the scrotum, and held it there by stitches. But that operation was not a great success in a large proportion of the cases. In some it worked well. I took up this work in 1898, and added to it three distinct factors. First, Max Schüller did not make a tunica vaginalis for the testicle. I have done over fifty of these operations, and the Mayos have done more than that. They have adopted my operation. We have found it important to have a tunica vaginalis if we want to have a normal result, and not have a mass of connective tissue in the scrotum. The second point was to devise a method of bringing the testicle down into the scrotum so that there would not be any tension whatever; separate the funicular process transversely to the external ring, ligate the stump as in a hernia, save the rest of the tunica vaginalis, sew it up with purse-string suture, making a definite tunica vaginalis for the testicle; then divide all connective tissue above the cord, make a little pocket in the scrotum with blunt dissection, bring the testicle down so completely that you can easily lay it on the bed opposite the bottom of the scrotum, before you try to put it in the scrotum. It is as lax as that if the thing is properly done. Incision should never be made in the scrotum; it should never extend below the external ring; the testicle is put in the pocket of the scrotum, and retained there by purse-string suture at neck of scrotum.

With reference to the division of the vessels, we have found that out of fifty cases there were six or seven in which we could not bring the testicle down into the scrotum without any tension unless we divided the vessels. We have not hesitated to do that, and we have not had a single case of atrophy of the testicle or any evidence of interference with function. We did that on the basis of well-worked-out laboratory investigations and clinical results, as Dr. Kolischer has pointed out, obtained in connection with the treatment of varicocele. In the operation for ordinary varicocele, where you ligate the separate artery and vein, how many of you see atrophy? It is a rare thing. The operation requires in the adult about the same technic as for a Bassini operation. In a child under 10 years of age, or under the age of puberty, you want to use small instruments; the dissection is much more delicate and difficult, and yet can with patience be carried out, and I am rather inclined to believe from recent work that it is much better to operate on children before puberty than afterward, and have the testicle well down in the scrotum at the time puberty occurs. I can assure Dr. Blech that we have at least forty cases in which it would be difficult for him to determine that any of them had ever been operated on.

Dr. Carl Beck:—I wish to speak of one or two points that were not mentioned by the essayist. It is the consensus of opinion at present of all surgeons that orchidopexy is a plastic operation which should not be done for cosmetic reasons alone. The first point, therefore, is with reference to the indications for this operation. These indications are drawn very carefully in a paper recently published by Lotheissen, in the *Zeitschrift für Klin. Chirurgie.*. In this paper he points out that unless symptoms are present that there is a hernia with the undescended testicle or pain, or both, the operation for cosmetic purposes should not be undertaken, and only those cases should be operated on where the testicle is in the inguinal canal. It is barbaric to remove the testicle, which Kocher and others have refused to do, and which everyone else refuses to do now, since the operation can be done successfully by the methods of Bevan and others. The testicle can be brought down, carefully fastened to the scrotum, and should not be removed. If the cord is so short that it can not be brought down, it should be placed in the abdomen intraperitoneally. Only those cases ought to be operated on in which true indications exist.

Dr. Blech (closing the discussion):—I wish to say that part of my paper was evidently misunderstood. I did not endeavor to give the exact technic of Professor Bevan's operation; but the criticism I offered was with reference to the division of the blood vessels. I am sure I saw in the literature reference

to the effect that in some cases atrophy followed the division of the arteries. I believe Dr. Thexton was present at one time when a surgeon in operating for varicocele cut the artery and atrophy followed. At any rate I can not help but look upon division of the artery in an operation for varicocele as a surgical blunder. As regards the technic, it is a problem which must be solved by an appreciation of the nature of the anomaly—if it were true that the blood vessels alone are responsible for the shortening of the cord, then, of course, all further arguments are unnecessary, but it seems to me, most men who have done research work, have come to the conclusion that it is not only a mere matter of blood vessels and connective tissues, but of the entire peritoneal sheath covering the cord. When we find already a condition of atrophy, like in my case, where everything is very thin, we practically have no organ to work on, making the stripping of the tunica vaginalis and peritoneal pouch a rather delicate task. Of course, adhesions must be relieved. There is no question but that the testicle can be put in the scrotum and held there below the external ring by my method. Whether it lies close to the external ring or very low in the scrotum matters very little.

As regards the indications for the operation, malignancy is not the only indication; pain and annoyance are sufficient indications, but even if they be absent I can not agree with Dr. Beck that an operation is contraindicated because Kocher and others have reported comparatively large numbers of malignancy. The operation, therefore, becomes a preventative one.

NORTHWEST BRANCH.

The second annual meeting of the Northwest Branch of the Chicago Medical Society was held at the Northwestern University Settlement Building, Augusta and Noble Streets, Friday evening, Nov. 6, 1908, at 9 p. m. The program of the evening was a symposium on "Syphilis." Chas. E. Fischer read a very interesting paper on "Spirochæta Pallida," explaining the chief characteristics of the spirochætæ and demonstrating them under the microscope. E. A. Fischkin spoke on diagnosis and showed photographs illustrating the differential diagnosis in unusual cases. Arthur A. Stillians read a very concise paper on treatment, mentioning the best means for prevention and Metchnikoff's calomel ointment, and told of its use in the German army, discussing the newer treatment with atoxyl. R. S. Michel showed a case of Charcot's joint affecting the right knee. The discussion was opened by W. J. Anderson and followed by F. H. Harris of the West Side Branch. There were 42 members present.

THE TREATMENT OF SYPHILIS.

ARTHUR W. STILLIANS, M.D., CHICAGO.

(*Abstract.*)

PROPHYLAXIS.

First in importance is education. It must be done and on a much larger scale than at present. The education of the already infected, aside from their disastrously acquired experimental knowledge, the education of children at puberty, of factory employés, and of the general public. The time is past when the people can be allowed to remain in ignorance of scientific facts of such vital importance.

Police regulation of prostitution seems to have proved of slight value; but I believe that the health department can and should be cognizant of every case of syphilis known to the profession, and by a careful oversight, respecting so far as is possible the feelings of the unfortunate victim, prevent in large measure the spread of the disease. According to the new city ordinance regulating dispensaries, they must report each week all cases of syphilis and gonorrhea treated by them. This law marks the beginning of a campaign against syphilis, far more successful than any waged in the past. The compulsory examination of all

prisoners, beggars and tramps, and of all employés of any trade like glass-blowing, in which there is danger of infection of the innocent. Allied to this and also to the educational method, is the need of greater facilities for the treatment of syphilitics and for the study and teaching of syphilography. The lessening of quackery in this most fruitful field for quacks will save many a gullible person an expensive course of unnecessary treatment, will thus lessen the popular idea that syphilis is easily cured, and will give many a sufferer the prompt energetic treatment that he needs, to save himself and others. Social reforms, by providing a more easily acquired education, cleaner and better living, and a greater possibility of early marriage will lessen prostitution and its evil results. A French authority estimates that in Paris one-twentieth of all abortions, one-fifth of all the deaths in the first two weeks of life, and one-tenth of all in the first two years, are caused by congenital syphilis. The careful instruction of syphilitics on this subject, the thorough treatment of both husband and wife, and the energetic treatment of the pregnant woman, especially before the fifth month, even though she shows no active evidence of the disease at the time, will cut down this mortality. The need of means of tracing up all active cases and thus protecting from infection the innocent and assuring treatment for those already exposed, is nowhere more apparent than here.

It has often occurred to me as wonderful that the infection of the innocent from public towels and cups occurs so seldom, considering the number of cases with mucous patches that use no precautions whatever to protect others. This is explained by the fact that syphilitic secretions lose their infectiousness in from sixteen to twenty-four hours when moist and in six hours when dry.

A 30 per cent. ointment of calomel has been found by Metchnikoff to be an efficient preventive of syphilis if rubbed into the site of inoculation within a few hours, six at most, after infection.

TREATMENT OF PRIMARY LESION.

In spite of all this testimony that the virus very soon extends so far into the tissues that it is beyond the limits of a wide excision, many good authorities advocate the resection of the chancre wide of the induration, when it is situated on the prepuce and if seen before it is a week old. If cleanly done and carefully sutured it does no harm, and no one can deny must do some good in removing the chief source of infective material, though we can not say the only source. When the chancre is on the glans or some some extragenital site where its removal would disfigure, the calomel ointment is possibly the best application.

CONSTITUTIONAL TREATMENT.

Mercury is the great specific for syphilis. Its work is accomplished apparently not by killing the spirochæte, but as a milder antiseptic which inhibits the proliferation of the spirochæte and so holds the disease in check, while the tissues are engaged in the exceedingly slow elaboration of specific antibodies. Our aim in giving mercury, then, must be to saturate the patient with mercury as soon as possible after the diagnosis has been definitely made, and then to keep his tissues flooded with the drug just short of the amount which poisons him. The quickest and most reliable methods of accomplishing this are by inunction or intramuscular injection. If carefully given, I believe the injection of soluble salts as safe as any method. There are several excellent formulas, the one I prefer being a 2 per cent. solution of mercury cyanid, with 1 per cent. cocain. Of this solution, the beginning dose is ¼ to ½ cc., rapidly increased. Injections are made every three days. If for any reason the injections are refused, inunctions may be substituted, beginning usually with 2.0 to 4.0 of the blue ointment diluted with an equal amount of lanolin. By these methods the patient is soon brought to the point where mercury is eliminated so rapidly in the gastrointestinal tract as to cause irritation of the tissues. To prevent these signs of saturation occurring too soon, the mouth must be carefully put in order

at the outset. The internal administration of mercury is by far the most popular in this country, and is no doubt an efficient method if as carefully managed as the methods already mentioned must be. But the dose must be kept at the highest that the patient can stand, only a little below that which causes slight irritation.

This, the "tonic dose" of Keyes, can be kept up steadily or an occasional change may be made in the method of administration, or an intermission of treatment allowed, especially if the injection method be employed. Tonic, of iron, strychnia, arsenic or quinin or combination of these must be freely used when indicated, preferably during the intermission in the mercurial courses.

Arsenic is being brought forward as a specific, which it no doubt is to a certain extent. Metchnikoff finds that a dose of atoxyl of three centrigrams per kilogram of body weight, injected within fifteen days of inoculation, will prevent absolutely the development of syphilis. This dosage, averaging two grams for an adult of medium weight, divided by Hallopeau into successive doses several days apart of 0.75, 0.60 and 0.50, has been given to infected humans without signs of intolerance, though the drug in other cases (given in other diseases of the skin) has produced poisonous effect ascribed to its aniline element. Quinin, also, has proved of great value in dispelling specific lesions. It is given by the Lenzmann technic intravenous injections, doses of 7½ grains on two successive days, then four doses of 9 grains each at four-day intervals. At the same time he uses nucleinic acid to produce a leucocytosis, giving it in an olive oil suspension with quinin by intramuscular injection.

TREATMENT OF TERTIARY LESIONS.

For all gummatous lesions, whether they occur early in the disease or late, the iodids and pre-eminently potassium iodid, are the great resources. They should be given vigorously in doses large enough to reduce the lesions. After the continuous administration for a time, and the control of the lesions, there should be an interruption of the iodids to avoid a tolerance for the drug being established. In a great many cases, gummatous lesions yield more readily when mercury is given along with the iodids.

DURATION OF THE TREATMENT.

Most authorities agree that a three-year course is practically safe, though nearly all unite in advising short courses in the years following, in order to "make assurance doubly sure." During the third year the iodids are given, even though there are no special indications for them, with the idea of a prophylaxis of tertiary lesions. The influence of the Wasserman test upon the treatment consists entirely for the present of diagnosing latent, or doubtful active cases, and eliminating to a large extent the necessity of the so often unsatisfactory therapeutic test. We may all hope, however, for valuable testimony to the value of our treatment, and the final cure of the disease, if any there be, from these investigations of the syphilitic antibodies.

SUMMARY.

1. Make an early diagnosis and begin treatment early, pushing it vigorously.
2. Excise the primary lesion if preputial and less than a week old.
3. The use of the 3 per cent. calomel ointment is an efficient abortive if used within an hour after suspicious intercourse.
4. Iodids should be reserved for gumma and visceral lesions, early or late, and for the latter part of the regular course.

HYPEREMIA.

H. J. Burwash, M.D., Chicago.

(Abstract.)

Hyperemia may be divided into two forms: physiological or natural, and induced or artificial. In the former, all organs that functionate become hyper-

emic during their active periods, as shown in Nature, both in the functions of each individual organ and that of growth and regeneration of tissues. Bier's attention was drawn to the fact that all tissues become hyperemic in Nature's efforts to restore its equilibrium, or get rid of the offending causes, and consequently he decided to imitate Nature's method by also inducing more blood to the affected parts, and to accomplish this he adopted the active or arterial, as that induced by hot air, through hot-air boxes or machines, and the passive or obstructed method as accomplished by a cupping glass or by stasis bandage, the latter applied at a point above the part to be treated. When a limb or a part is subjected to a hot-air treatment or submitted to the radiant heat of an electric light, the heat first causes a stimulation of the sensitive nerves, which causes dilatation of the blood vessels, and Professor Bier's assistant, Dr. Klapp, has demonstrated that this dilatation not only affects the superficial vessels, but extends throughout the entire thickness of the limb to the vessels of the bone itself. Dr. Klapp in his experiments by placing a rabbit in a hot-air apparatus also demonstrated that the blood supply of the viscera could also be increased. The effect, then, is to cause sweating and an active increase in both the volume of the blood and the rapidity of motion. A rubber bandage is applied above the place which is to be rendered hyperemic, in several turns covering each other firmly enough to compress the weaker walls of the veins, but not the harder ones of the arteries, thus according to the firmness of the applied bandage any degree of stasis hyperemia can be produced. The following phenomena must be observed: 1. The part distal to the bandage swells and becomes red and retains its warmth. 2. The pain is relieved. Should the part become cold and blue, the bandage must be loosened. 3. The bandage is not kept on continuously, but removed from time to time and reapplied in proximity rather than over the original site. If a wound is under treatment the usual pre-antiseptic methods are carried out. 4. When vermilion spots are produced in large numbers in an extensive area, the stasis has been intense and excessive, and this should be avoided. Intense stasis is a very dangerous agent for the limb because it leads to considerable reduction of the temperature. Bier has termed this degree "Cold stasis." 5. The stasis must never produce inconvenience, pain or hyperesthesia in the treated limb. The patient who wears the bandage must suffer so little difficulty from it that while following his usual occupation he forgets its presence, for a vigorous hyperemia will be induced, especially in inflamed parts of the body. Bier states that stasis hyperemia never produces varix peripherically; when it is produced there exists in addition an affection of the wall of the vein. He has demonstrated that both forms of hyperemia, active and passive, can be produced by the suction apparatus, and he has termed it mixed.

GENERAL EFFECTS OF HYPEREMIA.

First, the most striking is the relief of pain. The second quality of this treatment is that it restores mobility to stiffened joints. The irritation of the nerves in the joint is lessened and the contraction of the muscles is relaxed. The bactericidal effects of hyperemia, Notzel has demonstrated. (In 1901 I reported a series of cases of acute localized and septic diseases, viz., pneumonia, appendicitis, osteomyelitis and pleurisy treated by the application of the superheated dry air with beneficial results. I believe I was the first to treat by this method the above diseases, but of course the term "hot air" was used in place of the present name, hyperemia.) Practically, I have found that the most useful method for producing the purest form of hyperemia is by incandescent or arc light apparatuses. Besides the heat the different light rays are brought into effect. Active hyperemia is used in the treatment of those diseases in which the absorbent effect is principally desired, as in chronic affections of joints, trauma, gonorrhea, stiffness or anklylosis from rheumatism, chronic effusions, edema following fractures, thrombosis varicose veins, pleurisy with effusion, delayed resolution in pneumonia, adhesions especially in pelvic viscera.

The influence of hyperemia on regeneration. Experiments by Ambrose Paré and others have shown that retarded formation of callus can be largely increased by adoption of artificial venous hyperemia. Inflammatory foci and soft tuberculous inflammations can be converted into scars. This transformation plays an important rôle in the cure of infectious diseases.

Professor Bier believes a rapid cicatrization of inflammatory foci incapsulates the bacteria and renders them harmless. We know from experience that Nature makes use of this method.

The application of hyperemia in the treatment of diseases. The author began its use in 1898, first with the Betz hot air apparatus. The diseases which I at first treated were different forms of neuralgias, sciatic and trifacial. For sciatica the best results were obtained when the body machine was used. Here a general sweating was induced and a cure was effected after 20 treatments. Duration of each, 45 minutes, with temperature 300. In trifacial neuralgia the pain was invariably relieved after 20 treatments. Here the high temperatures to the face induced vertigo, and therefore the duration should be limited to 25 to 35 minutes. Profuse lachrymation is induced. In locomotor ataxia I have used both hot air and electric light for the purpose to improve nutrition of the cord. The application is made locally to the spine, while no case has been cured, yet an improved condition with relief of the neuralgic pain ensued. In neuritis electric light with blue screen is the most grateful. To improve nutrition of the peripheral nerves in cases of paresthesia accompanying diabetes, I am using the suction apparatus to the feet and legs. In this case, it is too early to report results. In the venous system hyperemia has long been known to improve varicose ulcers of the legs, and in inoperable cases it is one of the best treatments known, as old chronic ulcers which have continued for twenty-five years have been healed by the hot air apparatus. In acute thrombophlebitis, hyperemia with hot air apparatus applied twice daily for 45 minutes' duration produced brilliant results. I have treated several such cases in typhoid fever patients. The pain is at first relieved, which in itself, if no other benefit was derived, would compensate for its use, but the swelling subsides and the temperature also falls, and the progress of these cases is cut short, and early recovery ensues.

In pneumonia active hyperemia through hot air machine relieves the pain, lowers the temperature, lowers blood pressure in sthenic cases, favors an earlier crisis, and aids in resolution; the latter feature is especially noted in the asthenic type of old people. In pleurisy with effusion, pain is relieved and resorption of the fluid is aided and encouraged, and when tapping is not done, hyperemia applied twice daily will absorb the fluid from the pleural sac even if three-fourths full.

In catarrhal condition of the bile ducts of the liver and gall bladder, hyperemia has produced excellent results. Boils or furuncles can be aborted if taken at an early stage by the active hyperemia of the incandescent lamp and followed by the suction or cupping glass. Mastitis readily yields to active hyperemia. In facial erysipelas the inflammation is prevented from spreading, pain is relieved, and the temperature falls. The disease, if taken early, is aborted. Lymphangitis from local infection is treated with excellent results by the stasis bandage.

Bursitis and synovitis of the knee joint are early benefited by the combined treatment of active and passive hyperemia. The parts to be treated by the suction apparatus should be smeared with vaseline and before and after a treatment should be cleansed with benzine. The cup is applied directly to the affected area. In acute inflammations the air exhausted should be slight, only just sufficient to cause the glass to adhere; in chronic or tubercular inflammations, a greater exhaustion is used, but in neither should pain be produced. The treatment should last three-quarters of an hour daily and even for that time not continuous, but is interrupted every five minutes with a three minute interval, that is, during a three-quarter hour treatment the cups are on five minutes and off three minutes.

Some conclusions derived from hyperemia treatment may be summarized as follows:

First, that hyperemia as advocated and practiced by the Bier method and teaching has been taken from the plane of empiricism and elevated to that of science.

Second, that the application of the congestive bandage appears simple enough, yet so much depends on the correct *principles*, to receive the utmost beneficial results from its uses, the degree of hyperemia and its duration, depends the success or failure of the treatment. It was only after long experience and many failures that Bier arrived at his present technique.

Third, from ancient times cupping has been done to draw the blood away from the affected parts, to produce an anemic effect. Bier has demonstrated that this is a fallacious theory, that cupping, instead of producing anemia, produces the opposite effect, hyperemia of both deep and superficial tissues.

Fourth, that the treatment by active hyperemia of organs deeply seated, as the lungs, liver, intestines, and the other abdominal viscera can be effectually accomplished through its bactericidal effects.

Fifth, that the bactericidal effect of active hyperemia warrants its use in the treatment of localized infectious germ diseases of the internal organs.

NORTH SHORE BRANCH.

The meeting of Nov. 12, 1908, consisted of a paper by Dr. C. J. Whalen on The Abuse of Medical Charities in the City of Chicago.[1]

DISCUSSION.

The following doctors participated: E. A. Fischkin, chairman of the Committee of the Chicago Medical Society to Investigate the Abuse of Medical Charities; E. L. Kenyon, member of the same committee; J. E. Stubbs, C. D. Pence and G. W. Green, former members of this committee; H. E. Irish, President of the Northwest Branch; also, G. G. Burdick, T. W. Parsche, T. A. Hogan, I. D. Rawlings, T. A. Kreuser, M. A. Griffin, L. Maywit, F. R. Byrnes and A. C. A. Gaul.

The discussion was opened by G. C. Burdick, whose denunciation of the Department of Health turned the discussion into a sharp criticism of the Department. After a time, Dr. Gaul rose to a point of order, maintaining that the remarks were not concerning the subject of the paper supposed to be under discussion. The president sustained the point, and thereafter the discussion was confined to the Abuse of Medical Charities, the following points being brought out:

1. Those serving at free dispensaries are not anxious that only the poor apply for treatment; on the contrary, the well-to-do are welcomed, because they may be sidetracked to become profitable private patients.

2. Many so-called free dispensaries charge their patients fees (ostensibly for medicines, etc.), which amount to a fair remuneration for the services rendered. No objection is made to the doctors because they get a reasonable fee; but they should not obtain money under false pretenses—advertising a "free" dispensary and then in reality making charges.

3. Dr. Byrnes maintained that all beds in all except private hospitals, including ward beds, should be open for the patients of any doctor, whether he is a member of the staff or not. As far as he knew, only one hospital in Chicago is run on this plan.

4. Many instances were cited of patients who entered as "hospital" patients, who were assigned to attending surgeons, and who had their operations performed free of charge, though they were abundantly able to pay. In one instance in this city a prominent surgeon refused to do an operation without a fee for such a well-to-do patient, and he was promptly separated from the staff.

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1. For text of paper see p. 1.

5. Corporations came in for criticism, because of the small remuneration which many of them give for contract work. They were defended by Dr. Parsche, who claimed that some of them at least pay but little less than full rates for the services of their physicians.

6. The Department of Health was criticized, especially by Dr. Hogan, for the insufficient remuneration of its employés, especially the Medical School Inspectors.

7. Finally, the discussion crystallized in the following idea, brought out particularly by Drs. Franklin, Irish and Green: *There must be an organization or clearing house* (the Bureau of Charities has already offered its services) *to which all applicants for free medical services must apply, and by which the worthiness of these must be investigated and approved, before they may receive free treatment.* This does not apply to emergency cases; these may be treated at once. However, these must be investigated later, and if they are found to be able to pay, a bill must be sent to them.

It was the expressed determination of many present to keep this subject agitated till the next meeting and then to take further action upon it. It was suggested by some also that later in the year a meeting of representatives from all of the branches of the Chicago Medical Society be held, and that through this action pressure be brought to bear so that genuine results may be obtained and a *clearing house be actually established.*

Discussion was closed by Dr. Whalen.

WALTER C. JONES, Secretary.

CASE OF PLACENTA PRÆVIA CENTRALIS. CONSERVATIVE TREATMENT. RAPID DELIVERY AT TERM. MOTHER AND CHILD LIVING AND WELL.

J. F. HULTGEN, M.D., CHICAGO.

Recent articles upon placenta prævia show such radical tendencies that I wish to report the following case as a mild protest against hasty procedures:

Mrs. A. S., 38 years, housewife; German; three living children, and seven dead of intercurrent infectious diseases. Had four miscarriages of three and five months of pregnancy. Always had tedious labors because dilatation too slow. Is a well-built, well-nourished woman, always in good health. Bony pelvis showed normal proportions.

History of present pregnancy: June 3, 1907, at office, found pregnant in seventh week, consulted because of slight hemorrhage on previous day, after having amenorrhea the two last menses. Curettage for abortion six months ago (a six weeks' pregnancy).

Oct. 19, 1907: Seventh month, severe hemorrhage, continuous, moderate flow from vagina for eleven hours. Occurred at 2 p. m. in bed, without apparent cause. Placental edge felt per os. Fetus in transverse position. Fetal heart sounds slightly perceptible. Souffle heard in left hypogastrium. Patient, weakly, rather pale, dizzy at times, backaches. No uterine contractions. Cervico-vaginal tampon.

Nov. 2, 1907: Moderate hemorrhage, dark blood.

Nov. 4, 1907: Slight hemorrhage, a few clots passed; no uterine contractions. Fetal heart sounds not heard, transverse position yet.

Nov. 30, 1907: Hemorrhage of about one pint dark blood. Consultation, Dr. E. A. Streich. No uterine contractions. Patient rather pale, but keeps up and does her housework entirely, excepting the laundry.

Dec. 6, 1907: Bleeding yet, has been flowing slightly for last six days. A few clots. Abdomen large and square. Fetal movements became more and more marked. Patient gaining in weight. Appetite fair.

Dec. 9, 1907: Small hemorrhage. Piece of placenta hard and calcareous, felt per vaginam. Cervix admits four fingers.

Dec. 29, 1907: Marked hemorrhage, began while patient was in bed, about one quart and a half of dark blood lost in four or five hours. No gushing of blood. Facial expression good. No uterine contractions.

Jan. 7, 1908: Fairly large hemorrhage at 10 a. m. Tampon again.

Jan. 8, 1908: Very severe hemorrhage at 2 a. m. Pulse good, rather slow. Mild uterine contractions. Cervico-vaginal tampon, Dr. Charles Erickson and myself. Case watched and things made ready for immediate delivery if necessary. Cervix admits five fingers, lower uterine segment soft. Moderate bleeding all morning. Patient looks and feels very well considering her losses of blood. Consents to be transferred to hospital. Admitted at Englewood Hospital Jan. 8, 1908, at 2 p. m. Tamponade renewed, cervix dilating, uterine contractions still keeping up. Cephalic presentation, head not engaged. Patient in fair condition. I decided to wait for more dilatation before interfering hoping that the case might possibly terminate by itself. Another hemorrhage at 7 p. m., in spite of a third packing, decided me to deliver at once. (Patient was then two days short of term.)

Pelvic Status.—Cervix admits more than five fingers. Placenta forms a complete dome over the lower uterine segment—prævia centralis par excellence—slight bleeding from the separating cotyledons. Head down, not engaged. Fetal heart sounds well audible. Patient in good condition.

Operation.—Chloroform narcosis, Dr. Starnes; assistant, Dr. Conners, asepsis. Barnes bag found useless. Bimanual digital dilatation according to Harris. Then large, central rupture of placenta and membranes (Puzos method), podalic version, followed by rapid extraction by feet. No trouble with the after-coming head, because it was rather small, and the maternal pelvis rather large. Child 7¼ pounds, in good condition. Placenta then delivered by manual separation and expression. Moderately large hemorrhage at rupture of placenta, but none later.

Puerperium: Uneventful, no infection, no laceration. Complete recovery. Child breast-feeding and healthy.

Reflections about this case: Conservatism has its legitimate place, even in placenta prævia centralis. The cervico-vaginal tamponade, when done properly, is useful. It stops moderate hemorrhage, helps to dilate the cervix, and gives the obstetric attendant time to gather his thoughts.

Repeated hemorrhages, if not too large and too closely successive, are the best stimulant for the blood-making tissues. This is proved, experimentally and clinically. Remittent bleeding, therefore, is of itself not a sufficient indication for terminations of pregnancy.

5059 Ashland Avenue.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY.

Meeting of October 13, 1908.

The President, Dr. A. H. Andrews, in the Chair.

CYST OF EPIGLOTTIS; FOREIGN BODY IN LEFT BRONCHUS; RANULA; PARAFFINOMA.

Joseph C. Beck, M.D.

RANULA.

Helen G., 8 years old. A swelling in her mouth just underneath the tongue had been noticed for the past year. Teeth very bad, otherwise well. Examination revealed a smooth swelling, filling out the whole floor of the mouth and pushing the tongue upward, thus preventing the closure of the mouth. The swelling is soft and not painful. Diagnosis: ranula, possibly both sides. Figure 1 shows patient before operation.

Under general anesthetic I made an incision along the floor of the mouth over the greatest prominence of the tumor and resected it submucously, which was not very difficult to accomplish by means of blunt pointed scissors. The

cyst was accidentally punctured, fortunately near the completion of the enucleation. The puncture caused the discharge of a watery secretion. The sac was very easily removed; the wound sewed up. It proved to be only unilateral but extended to the opposite side. I took care not to destroy the normal ostium. The recovery was uneventful. It is interesting to note that these conditions are not common in children. Keen says they are rare in that time of life.

CYST OF EPIGLOTTIS.

This child, S. G., 5 years old, was presented by me before this society last year, after I had operated on her and believed the condition to be cured. Briefly repeated, the history is as follows: The child was brought to the hospital by Dr. Merki as an emergency case, with marked choking, due to some

Figure 1.

laryngeal obstruction, which she had had, in moderate form, ever since birth, but the condition had rapidly grown worse during the past week. All I could do was to feel some swelling in the region of the epiglottis and practically do a stabbing tracheotomy. The child rallied and I made a subsequent diagnosis of a papilloma or myxoma with edema of the glottis. About six weeks later I operated by the direct method, using Jackson's laryngeal speculum, and attempted to snare off a sessile tumor, about the size of a large hazel nut. When I put on my fixation forceps I opened a cyst and removed about a dessert spoonful of whitish cystic fluid. The following diagnosis was then made: A cyst of the epiglottis of the left side at the pyriform fossa. I removed as much of the wall as I could and inserted a large cautery point, seared the cavity, and so

expected its obliteration. The child made an uneventful recovery, and her voice as well as her breathing became absolutely normal.

I observed the child for about three months and finally told the mother to bring her back if at any time there were indications of a recurrence of the trouble. Last month she brought the child to me and I found a recurrence of the cyst, although it is not as large as it was the first time, but it appears to have thicker walls. I have certain plans of procedure, which, however, I will not mention until after the discussion, as I hope to profit thereby.

Since the presentation of this case the child has been operated on. I performed an external pharyngotomy, without preliminary tracheotomy, and removed the entire cyst. It originated from the left side of the epilaryngeal space, close to the tongue and a congenital cyst of the thyroglossal variety is to be considered. The child made an uneventful recovery.

PARAFINOMA.

I wish to present this case with a view of discussing the pathological entity of this so-called neoplasm. It is particularly interesting to the rhinologist who is concerned in the correction of nasal deformities of the saddle or notched variety.

Fischer[1] has called attention to the fact that injections of paraffin have a tendency to cause the formation of malignant disease, and if that be true, then it is very important that its employment should be discouraged. Kirschner[2] says that the termination of the paraffin is dependent upon what consistency of this substance is employed, whether hard or soft, i. e., having a higher or lower melting point, and on the admixture of vaselin. He claims that the softer paraffins are absorbed, while the harder remain always as such and become encapsulated and traversed with new blood vessels and connective tissue. Harmon Smith[3] recently made some histological observations concerning the final results of injected paraffin and finds that the connective tissues traverse and surround the softer paraffins. Sehrt,[4] who reviews the literature completely, finds, like Kirschner, the fat formation the most interesting point for discussion and the possibility of serious complications as fat embolism in the later stages of the injections.

Broekert[5] and others are all practically of the same opinion, and they have never reported a case of any malignancy following its application.

Heidingsfeld,[6] reporting two interesting cases and thoroughly reviewing the literature, makes the passing remark, in his histological examinations of portions removed of a "precancerous keratitic formation of the skin overlying these masses, and by analogy believes the same conditions may be going on in the deeper layers.

My personal observations, which date from the time Professor Gersuny[7] first reports on the use of paraffin for correction of external nasal deformities, are the following: That in about 40 cases, injections being made in various parts of the head, and employing the various forms of paraffin, I have never seen anything resembling a sarcoma, clinically. In fact, with the rarest exception of a marked local reaction for a brief period, or a suppuration, I have never had any complication. On two different occasions I removed, without any difficulty, masses which I had injected three or five months previously. Having made a

1. Fischer: Munchener Med. Wochenschrift, 1906, p. 42.
2. Kirschner: Virchow's Arch.
3. Smith, Harmon: Transactions of Am. Laryng.-Rhino. and Otol. Soc., 1908.
4. Sehrt: Beiträge zür Klinischer Chirurgie, September, 1907, Heft 2.
5. Broekert: Presse Oto.-Laryng. beige Brux., 1906, v, 529-550.
6. Heidingsfeld: Verhandlung d. deutsch. Dermat. Gesellsch.
7. Gersuny: Zeitschrift für Heilkunde, 1900.

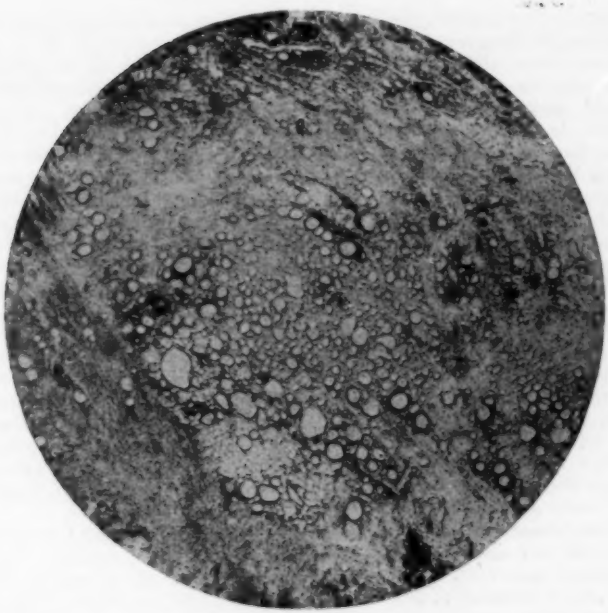

Figure 2 (Low power).

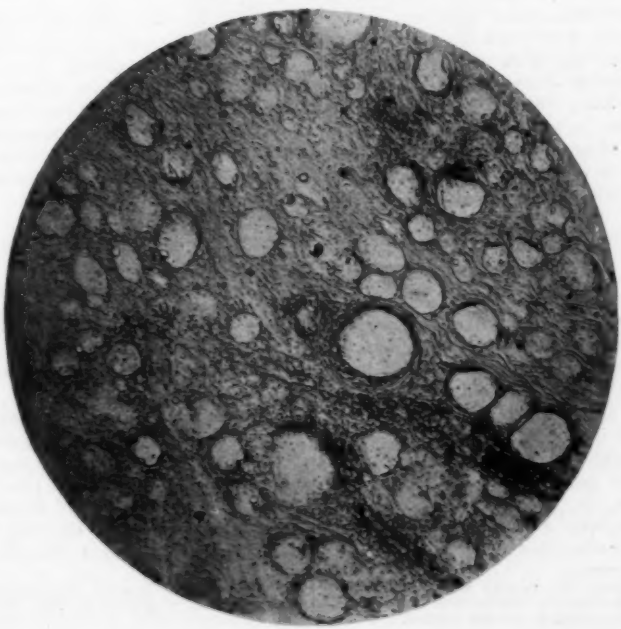

Figure 3 (High power).

small incision and applying pressure, the paraffin would come out in the form of a comedone, with no vessels or connective tissue traversing it.

History.—Miss McC., 32 years old, nurse. Had read of the use of paraffin for the correction of facial deformities, etc. Thought she would experiment with herself by employing paraffin to prevent the formation of wrinkles. (It is probable that the patient's mental equilibrium was somewhat effected). She employed a mixture of paraffin and olive oil, 60 per cent. paraffin and 40 per cent. olive oil, the paraffin having a melting point of 110°. She first injected the forehead, then the lower eye-lids, cheeks and neck. She observed that about a week after making the injections the regions became red and tender, and soon thereafter new capillary vessels were seen on the surface of the skin overlying the masses injected. About six months later she consulted Dr. Morris, of New York City, who made incisions into these masses, removing some from the forehead, but stated that he could not remove any of the masses from the face and neck. When patient consulted me, having been referred to me by Dr. Lieberthal, she was extremely nervous and spoke of suicide, complained of radiating pains in the face and about the ears. I found irregularly dispersed masses in the face and particularly large masses in the parotid region of the left side, which were quite firm and adherent to the underlying tissues. A large mass was situated on the left side of the neck reaching down as low as two inches above the clavicle. This mass was quite movable. All the masses had an angry red appearance and the overlying skin was traversed with small capillaries. Long scars showed where previous incisions had been made.*

The case seemed to be favorable for colored photography,* and I therefore had a front and side view taken by the Lumier method for stereoscopic projection, which would show not only the actual colors, but also the amount of swelling. I wish to call attention to this new method of photography, which I believe will be of inestimable value in the demonstration of our work in the throat, mouth and external pathological conditions.

I removed, under local (Schleich) anesthesia, the movable mass from the right side of the neck by excising it completely with the overlying skin, drawing the edges together, and obtained primary union. While removing the mass I came across lumps of paraffin and small quantities of a yellow substance, in liquid form, which I believe was the oil which must have separated from the paraffin. A small piece of this mass was taken for microscopical examination, and it shows (Fig. 3) principally fat vacuoles and older connective tissue with very few inflammatory cells. Nowhere is there any sign of a sarcomatous degeneration nor any sign of such a neoplasm.

FOREIGN BODY (TOY INCANDESCENT LAMP) IN LEFT BRONCHUS.

Joe C., 3½ years old. While playing with his sister she put something into his mouth, whereupon he became frightened. He began to cry and cough. The mother at once called a neighboring physician, who attempted to remove the foreign body with his fingers, but failing, he called in two other doctors who endeavored to remove the object by means of forceps, likewise without success. The child was then removed to the hospital as quickly as possible, and I saw it late in the evening of the same day. The patient was in good condition. The mother could not tell me what the child had inhaled or swallowed, but thought that it was the metal cap of her umbrella. The little sister refused to say what she had put into her brother's mouth, and the patient persistently pointed to the gas tip. I decided that a radiogram be taken. The fluoroscope showed the foreign body as located in the left side of the chest, between the sixth and seventh ribs, close to the sternum. Dr. Potter took the radiogram (Fig. 5) with

* These illustrations were presented to the Society. Any reader especially interested can obtain the colored stereoscopic photographs by applying to THE ILLINOIS MEDICAL JOURNAL or the author.

the patient lying face downward, and this shows an oblong body, about an inch long, in the region above described. I decided that it was the metal cap of the umbrella.

Under general anesthesia (chloroform) and by means of Jackson's speculum I found a slightly traumatized epi-larynx. I introduced a small bronchoscope (Jackson's) and looked in the left bronchus for the foreign body. There was not much congestion nor mucus present (employed 1/300 atropin previous to the operation). Suddenly the light became covered with some mucus and burned out. Replacing another and reintroducing, there again was some trouble with the light, so that I could not see well at all. I then used Kierstein's mirror, which was not much better, and I was forced to give it up. I had not encountered any foreign body and concluded that it might possibly be in the esophagus, which I examined with the aid of Kierstein's lamp, but found noth-

Figure 4.—Toy Incandescent Lamp. Actual size, five-eighths of an inch.

ing. The child was placed in bed for the night, having decided to wait until the next morning and then again use the fluoroscope to determine whether the object had passed or was still present. The patient had a temperature of 101.2 next morning, but appeared to be in good condition.

The fluoroscopic examination revealed the foreign body in the same position. Through the kindness of Mr. V. Mueller, who loaned and operated the new apparatus of Bruenning, I was enabled to do better work during the second attempt. I found a great deal of edema of the glottis, so decided to do a tracheotomy and work through the opening. The introduction of the above mentioned instrument was very easy and illuminated the field very thoroughly. However, I did not find the foreign body where it should be located according to the radiograph, i. e., as low as the sixth rib. Slowly withdrawing the tube, I came upon some projection, and by means of a blunt pointed probe began to in-

vestigate it. It appeared to be hard and I thought of a cartilage ring. The child was awakening and began to cough. A considerable quantity of mucus was expelled and at the same time we heard a clicking sound, something had dropped to the floor. The assistant holding the patient's head declared something hard had struck him on the wrist and showed me a blood stain where the object had struck him. Removing the tube and introducing a tracheal cannula, we then looked about on the floor and there found the foreign body, which was a toy automobile lamp. (Fig. 4.) The father, who was waiting for the returns, stated that his children had such a plaything, and subsequently the little girl acknowledged having placed the lamp into her brother's mouth. The child made an uneventful recovery and I herewith present him in evidence.

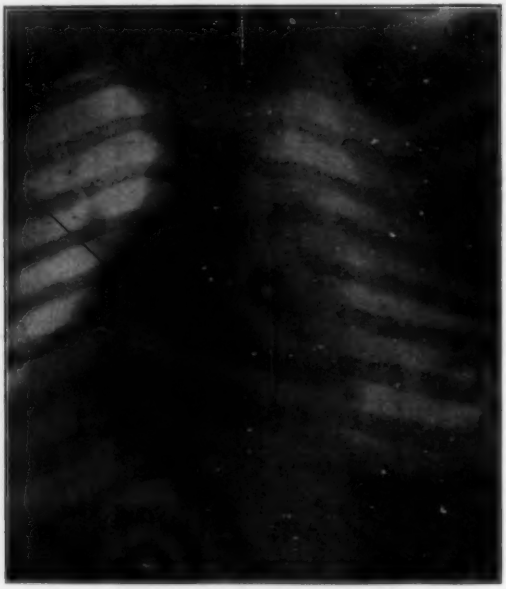

Figure 5.

I had another radiogram (Fig. 6) taken the next morning because of a discussion which came up, to the effect that glass does not show in radiograms. It is interesting to note that this glass bulb did show, and this is explained by the fact that these small bulbs contain a quantity of lead in the glass, and, as can be seen, there is also a platinum wire in the bulb, which, however, does not show distinctly in the radiogram.

I wish to express my kind appreciation to Drs. Jackson, Eisenstaedt and the other gentlemen assisting me in this case.

DISCUSSION.

DR. J. HOLINGER: A man came to me with a somewhat similar trouble as the Beck case following the injection of paraffin. He had had a suppuration of the lachrymal tract for which a physician injected paraffin with the hope of effecting a cure. The paraffin miscarried and went into the lower eyelid, causing an ugly looking sausage-shaped tumor. I did not treat the patient, but advised to try heat and massage.

DR. G. P. HEAD: I have cut into such paraffin tumors and had no trouble in squeezing out the mass. No scar was produced. As to malignant degeneration in these cases, I have watched the literature rather closely and have not seen any such cases reported.

DR. JOS. C. BECK (closing the discussion): The matter of malignancy is the particular point I wished to bring out in connection with paraffinoma. Kirchner has written more on that subject than any one else, and he has seen this spindle celled formation around the paraffin. Every foreign body becomes encapsulated, but if it is paraffin, the connective tissue always traverses the masses of it, giving us the appearance of a lipoma. There has been no postmortem report, but

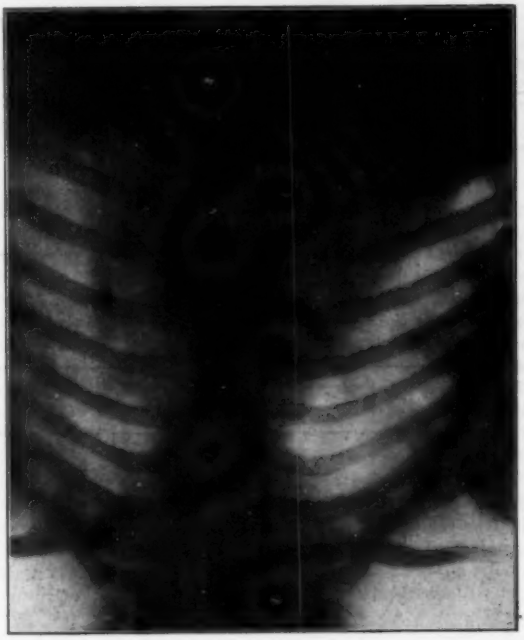

Figure 6.

cases of metastasis have been reported by Kirchner. I know of only one reported death following the use of paraffin, that of Pfannenstiel, who injected paraffin in a case of incontinence of the rectal sphincter.

In order to make glass stronger, lead is incorporated with it, and that is why glass throws a shadow under the Roentgen ray. Glass that does not contain lead will not throw a shadow.

CASE OF EXTENSIVE ABSCESS INVOLVING THE FAUCIAL TONSIL AND MASTOID; NASAL TUMOR (TUBERCULOMA) FOR DIAGNOSIS.

J. HOLINGER.

DISCUSSION.

DR. JOS. C. BECK: Every once in a while a case of tuberculosis of the adenoids is reported, and no doubt such reports would be more frequent if we would examine every adenoid that is removed. But I think that Dr. Holinger's case was one of an inflammatory mass, a small cell infiltration and not a

malignant tumor or tuberculoma. The duration of the case would preclude sarcoma.

DR. J. HOLINGER (closing the discussion): I saw several of those so-called tubercles in the tissues I examined and thought I was convinced as to the nature of the trouble. The great number of eosinophile cells points to the serious nature of the infection and to its long standing.

As to Dr. Andrews' question about the lead filled hammer, I think that the absence of resiliency in the lead hammer might account for the chisel's breaking. It certainly was very annoying to have to pick out the pieces of steel every time a chisel broke.

The diagnosis of Bezold's mastoiditis was excluded because there were no cells at all. The result of the syringing suggested a possible fracture of the external meatus, but may as well have been due to a dehiscence of the bone in the floor of the meatus.

CASE OF CHOLESTEATOMA CAUSING EROSION INTO THE HORIZONTAL SEMICIRCULAR CANAL.

GEORGE E. SHAMBAUGH, M.D.

CHICAGO.

Dr. Shambaugh reported a case of cholesteatoma causing an erosion into the horizontal semicircular canal, and discussed briefly the methods for examining the vestibular apparatus. The case was that of a man fifty-nine years old, who eleven years previous had a purulent discharge from the right ear, which lasted for several weeks. For several years past he has been annoyed with an accumulation in the canal of the right ear, which he supposed was caused by wax. In attempting to remove this with a hairpin he had set up a marked dizziness and nausea. The mass proved to be a cholesteatoma protruding into the meatus from an opening in the upper posterior wall, which led directly into the antrum. The membrana tympani showed maceration and thickening, but did not appear to be retracted or perforated. There was a quick response upon syringing the ear with water only slightly colder or warmer than the body temperature. This response was in the character of a nystagmus and pronounced vertigo. On compressing or rarefying the air in the external meatus by means of the Siegel speculum, even the slightest change in pressure resulted in nystagmus and vertigo. The functional examination showed considerable deafness, more marked for the lower tones, with only a slight defect for the highest notes of the Galton whistle. The Weber was distinctly lateralized to the affected ear, and the Rinné was negative.

From these symptoms the diagnosis of an erosion into the horizontal semicircular canal was made, the erosion having made an opening only through the bony capsule, but not through the endosteum. The slight amount of pressure necessary to produce the nystagmus and vertigo in this case shows how very delicate and sensitive is the adjustment of the terminal apparatus in the ampullæ.

Dr. Shambaugh discussed three methods of testing the excitability of the vestibular apparatus. All of the methods are dependent upon producing a motion in the endolymph of the semicircular canals. In the first method, that of the rotating chair, if the semicircular canals are normal and the individual is rotated toward the right, for example, there will be produced a nystagmus toward the right. If the rotation is kept up long enough, all sense of turning, as well as the nystagmus, will disappear. If the rotation is suddenly stopped, a sense of vertigo is produced, and there will be a return of the nystagmus, but directed toward the left. These phenomena can readily be accounted for by the production of a motion in the endolymph of the horizontal semicircular canals. The reason why the sense of turning and the nystagmus disappear after the rotation is discontinued for some time is explained by the fact that the fluid in the semicircular canals has taken on the motion of the walls of the canal, and

therefore, does not impinge upon the cupula in the crista ampullaris. The production of vertigo, and the nystagmus directed towards the opposite side upon suddenly stopping the turning, is explained by the continuation of the flow in the endolymph of the canals for some time after the turning has been stopped

The second method of producing a flow in the endolymph of the semicircular canals was the one used in this case in demonstrating the erosion into the horizontal canal. It consists in the production of either pressure or suction of the air in the external meatus. If an opening exists through the bony capsule of the canal, the endolymph will be caused to flow in this or that direction, depending upon whether suction or pressure is used.

The third method of testing the semicircular canals is that elaborated by Barany, and consists of syringing the ear with hot or cold water. If the vestibular apparatus is intact symptoms of vertigo and nystagmus can be produced by the use of either hot or cold water. In a case where the semicircular canals are not affected the reactions obtained are as follows: Syringing with cold water produces a nystagmus which is more pronounced when the eyes are directed towards the opposite side. Syringing with warm water will produce a nystagmus more pronounced when the eyes are directed towards the same side. The vestibular apparatus may be placed in a state of hyperexcitability as the result of irritation, such as may occur from circumscribed suppuration of the labyrinth. Under these circumstances the normal reactions upon syringing with hot and cold water can be obtained. In addition, however, there will frequently be present a spontaneous nystagmus directed toward the affected side.

When the vestibular apparatus is destroyed no reactions can be obtained by any of the methods for stimulating this part of the internal ear. If the destruction of the nerve endings in the internal ear has been a sudden one, there will be present for a short time a nystagmus toward the normal ear, which has its origin in this ear and not in the affected one. Disease of the cerebellum, such as tumor or cerebellar abscess, may produce the same symptoms as occur from irritation of the nerve endings in the vestibule, that is, a spontaneous nystagmus directed toward the affected side. One can readily see how this study of nystagmus, both spontaneous and induced, is of great value in the diagnosis not only of diseases of the labyrinth, but of such conditions as cerebellar abscess and cerebellar tumor.

DISCUSSION.

DR. J. HOLINGER: Dr. Shambaugh has gone over the ground very thoroughly, and these results of experimental pathology for the scientific physiology of the labyrinth are most valuable, but another question is to what exent can we apply these tests in our office for diagnostic purposes. Not everybody has a revolving platform, and it is not necessary either. The use of hot and cold water is also very practicable for demonstration in a hospital where you have plenty of assistants, but in an office, where the operator is alone, the procedure is a very dangerous one because the patient may faint and fall and hurt himself. I use cool and warm water and get the same reactions of nystagmus. Letting the patient hop back and forth with the eyes closed is a good and safe test of the stasis. A perforation of a suppuration into the static labyrinth, consisting of vestibulum and semicircular canals, as the danger of such perforation can perfectly well be diagnosed in the manner just stated. The use of excessive temperatures for the tests is unnecessary, brutal and dangerous. In testing the capacity of a bladder, who would fill it till it nearly bursts? Many patients told me that the dizziness from too warm solution is worse than any pain.

DR. JOS. C. BECK: Dr. Holinger's remarks might be taken as underestimating the value of the methods described by Dr. Shambaugh. I think that this is one of the best things we have learned—the diagnosis of labyrinthine disease by means of hot and cold water, all the credit being due to Barany. Look out that the patient does not fall. I have used the method in my office with satisfaction. Of course, one would not inject water into an ear that had been suppurating and became dry except for diagnostic purposes.

DR. F. ALLPORT: This is a most valuable method for diagnosticating labyrinthine disease. Last year I spent a few weeks in Vienna. Barany's tests were made on every suspicious case that was admitted into the Politzer ear clinic. They all use them and depend on them, and we can not afford to ignore the judgment of men of such experience. It is the simplest, easiest and best method for diagnosticating labyrinthine disease at our disposal. Dr. Holinger's objections are inconsequential and do not militate against the value of the tests.

EFFINGHAM COUNTY.

Following are the names and addresses of the officers elected Dec. 8, 1908, for the year 1909: C. F. Burkhardt, Effingham, president; P. I. Cromwell, Effingham, vice-president; W. H. St. Clair, Effingham, second vice-president; F. W. Goodell, Effingham, secretary; Henry Taphorn, Effingham, treasurer. Board of censors: Geo. Hommesser, Shumway; J. N. Matthews, Mason; J. H. Walker, Effingham; T. J. Dunn, Elliottstown; H. A. Long, Effingham. Delegate, Geo. Hommesser, Shumway; alternate, J. H. Walker, Effingham; member of the medical defense committee, J. B. Walker, Effingham.

LA SALLE COUNTY.

The La Salle County Medical Society held their semi-annual meeting at La Salle, Ill., on Oct. 27, 1908. There were forty members present, and a very profitable and interesting all day meeting was held. The matters which created the most interest from the standpoint of business were the revision of the County Fee Bill and the amendment of the by-laws which provided for branch societies of the county society in order that the members might do more effectual postgraduate work. Three branches were formed, being at the three cities in the county which were most accessible to all the members, and a program was adopted which will be followed through the winter season. The Dr. MacCormack resolution was adopted and a committee was appointed to confer with the representative of our district to secure his influence for the National Department of Health.

The members of the county society were the guests of the La Salle-Peru branch for dinner, and after a sumptuous repast the society met for the scientific program. Four very interesting and helpful papers were given, two of which will be found in this issue. Program:

1. "Surgery of the Prostate Gland.....Dr. S. B. Plummer, Chicago
   Discussion opened by Dr. Walter Curry, Streator.
2. "Operations on the Neurotic".....Dr. J. F. Percy, Galesburg
   Discussion opened by Dr. P. M Burke, La Salle.
3. "Renal Calculi" (report of cases).....Dr. Roy Sexton, Streator
   Discussion opened by Dr. E. P. Cook, Mendota.
4. "Pulmonary Tuberculosis".....A. H. Hattan, Peru, Ill.

Dr. J. F. Percy gave a very interesting paper, but as we hope to hear further from this paper we have not presented an abstract for THE JOURNAL. After Dr. Plummer's paper was read Dr. Walter Curry opened the discussion. Dr. Curry has recently returned from Europe, where he was much interested in the clinics at which the prostate operation is being performed, and we learned at that meeting that the American surgeons were pioneers in the suprapubic operation. The meeting adjourned at 5:30 p. m. and all agreed that the day was spent to good advantage. The spring meeting will be held at Ottawa.

RENAL CALCULI—REPORT OF CASES.

ROY SEXTON, M.D., STREATOR, ILL.

In reporting these cases I do not propose to enter into an exhaustive study of renal calculi, but having obtained two rather unusual specimens, thought it would be interesting to present them at this meeting.

CASE 1.—Mrs. V., of Kangley, Ill., Italian, age 36, referred to me by Dr. Powers. She was the mother of six children. The last two had died soon after birth. She had been strong and hearty until within three or four years of the time I first saw her. During the last three or four years she had two children, the last one about two weeks previous to the time I saw her. She had been treated a great deal for backache and severe paroxysmal pains in the region of the gall-bladder. Three or four months before I saw her she had gone to Mercy Hospital, Chicago, for an operation, but the doctors sent her home, probably on account of her being pregnant. When I first saw her, about two weeks after her confinement, there was a large mass in the right upper quadrant of the abdomen. This was palpable below the lower margin of the liver in the region of the kidney. She looked very toxic and was running a temperature from 99 to 102. The urine showed large quantities of pus which, together with other symptoms, confirmed the diagnosis of a probable kidney abscess accompanied by a stone. The patient was brought to Streator, where, March 15, 1906, I opened a very large abscess of the kidney and removed the stone which I will now pass around. It was four inches long and weighed two ounces. Several of the larger prongs that extended into the calices of the kidney were broken off in removing it, but these were easily taken out. The stone was in two portions in the kidney; one part extending into the hilum of the ureter, and the other extending into the calices of the kidney. It shows a remarkably smooth articular surface between the two portions. The condition of the patient, having two weeks previously been confined, and the parenchyma of the kidney having been pressed aside rather than destroyed, it seemed advisable to simply drain the kidney. The patient had a very stormy recovery running a high temperature for about three weeks, sometimes as high as 105. She finally left the hospital six weeks after the operation. She was well enough to be about the house most of the time. The incision closed, but she continued to pass a large amount of pus and looked very septic. About a year from the time of the nephrolithotomy she returned to the hospital and I removed the kidney. It contained an abscess cavity the size of a walnut. She left the hospital in about four weeks and improved so that about two months after the operation she walked from Kangley to Streator, four miles. However, she never fully recovered, and about three months after the last operation died of uremic coma.

CASE 2.—Mrs. A. P., American, aged 57. She has a deformity, shortening of the right leg, which she claims was due to acute inflammatory rheumatism when a child seven years old, but judging from the nature of the deformity it was probably tubercular. She has had one child and been in fairly good health until about two years ago, when she began having pains in the right side extending down into the abdomen and up into the right shoulder. She could feel a mass in the right side and had been treated for this condition and advised to have an operation. I was first called to see her July 22, 1908, on account of persistent emesis. This responded readily to medication, but examination revealed a large tender kidney on the right side somewhat prolapsed. This was movable but showed some inflammatory rigidity. Patient had a temperature of 101, complained of a bitter taste in the mouth and had a profoundly toxic appearance. Examination of the urine showed a trace of albumen and some pus. After a week of medical treatment the only improvement was in the vomiting, so she accepted an operation as a last resort. This was done July 29, 1908. The kidney was simply exposed and no attempt made on account of its size to bring it out of the incision. After exposure the upper pole was incised and found to

contain about one ounce of pus. Further exploration revealed a mass in the pelvis of the kidney which proved to be a stone weighing six ounces. This was easily removed and drainage instituted. The patient did well and left the hospital inside of three weeks. The incision closed at the end of the fourth week. She continued to improve slowly until about October 1. Then she had more pain in her side and more tenderness, until finally the sinus opened again about two weeks ago. She has never had a good appetite and has lost weight greatly during the last few weeks, so that the outlook for her recovery is bad.

CASE 3.—Mrs. H. K., aged 20, mother of three children. Had always been well and strong except diseases of childhood until about two years and a half before she was operated on. Before she beecame pregnant the second time she developed a large inflammatory mass in the left side with a continuous discharge of pus in the urine. Under rest and medical treatment this would improve for a time, then she would suffer another acute exacerbation of the trouble. She suffered greatly while carrying her second child, which was born during the seventh month of gestation. It lived only a few days. After the confinement she improved rapidly while taking urotropin but continued to pass some pus. She became pregnant again about two months after the premature birth. This third pregnancy did not irritate her kidney so much and she carried it to full term, being delivered of a healthy but small child Dec. 11, 1907. While nursing this child the kidney troubled a great deal. The last week of June, 1908, there was a notable increase in the size of the kidney. She had a temperature of 102 several days, so that she finally consented to an operation. July 4 I did a nephrotomy, finding about an ounce of pus. I examined the cavity for a calculus but could not discover any. Patient improved rapidly and left the hospital in three weeks. The drainage tube was taken out at that time. While changing the dressing one morning she discovered on the gauze a small calculus about one-half the size of a pea. She sent this to me for inspection but after examining it I was unfortunate enough to lose it, so can not present it for your inspection. The sinus closed six weeks after the operation and she is now in excellent health.

In these cases some of the later devices for assisting in a diagnosis were not available, so that all we could do was diagnose an infected kidney probably containing a stone. In the June number of *Surgery, Gynecology and Obstetrics*, Drs. Bevin, Smith, Vaughn and others have admirably treated of the diagnosis and treatment of renal calculi, and especially of the *x*-ray, catheterization of the ureters and cryoscopy. In our cases the diagnosis was made on the history of repeated localized pains, temperature, swelling, tenderness, rigidity and pus in the urine.

In treating the cases containing the large calculi the most important question, of course, was whether the kidney should be removed or simply drained. We refrained from a nephrectomy, first on account of the added danger from shock, as both patients were very much prostated; one patient being advanced in years and the other still convalescing from her recent confinement; second, on account of infection. In removing the kidney one would necessarily open up fresh tissue to infection. If this became infected it would not offer the resistance to the absorption of toxins that the kidney itself would; third, the systems of the patients, being profoundly toxic, needed all the elimination it was possible to obtain. The portion of the kidney substance surrounding the stone and abscess cavity seemed sufficiently healthy to secrete considerable urine. The elimination by this secretion would probably aid the patients more than an infected kidney remaining would harm them.

In the treatment of the case containing the small calculus I felt that drainage would be sufficient, as, in this case also, the tissues were not greatly degenerated. The wisdom of this procedure was demonstrated by the rapid and complete recovery of the patient.

As these cases are comparatively rare in the average medical experience, great care should be taken to weigh all conditions and the nature of the operation must

necessarily be controlled by the state of the patient in other respects as well as by the kidney conditions themselves. In cases where the kidney tissues are destroyed or injured to such an extent that they are no longer of evident value to the patient, a nephrectomy is certainly indicated at the primary operation when other conditions warrant such a procedure.

SURGICAL TREATMENT OF PROSTATIC HYPERTROPHY.

S. C. PLUMMER, M.D., CHICAGO.

When, in 1886, I assisted Dr. Wm. T. Beldfield in the removal, through a suprapubic incision, of an enlarged middle lobe of the prostate, I did not realize that I was participating in the introduction of a new epoch in prostatic surgery. Such, however, proved to be the case, as this operation is now referred to as the first prostatectomy by direct exposure of the enlarged gland. This case was briefly reported in the *Journal of the American Medical Association*, vol. viii, page 303, March 12, 1887. Previous to this time the only operation involving removal of any portion of the prostate was Mercier's, in which an instrument similar to a lithotrite was inserted through the urethra and portions of the projecting middle lobe bitten off.

The development since that time of the technic of removing prostatic enlargements by operative measures has made it possible to relieve suffering in many cases not benefited by other means of treatment. Operations for the purpose of drainage had previously been done, and with benefit, but the operation of prostatectomy, that is, the removal of part or all of the prostate gland dates, for all practical purposes, from Belfield's operation.

Before entering upon the discussion of the various operations I wish to say that by no means all cases of prostatic enlargement require prostatectomy. In view of the fact that nearly all men over fifty years of age have some prostatic hypertrophy, I would say, rather, that only a small minority of these cases require this operation.

In many cases practically no symptoms are caused, and, consequently, no treatment of any kind is required. The causation of symptoms depends not so much on the degree of the hypertrophy as it does upon the interference with the urinary passage; thus a large symmetrical hypertrophy may cause but little trouble, while a small localized hypertrophy distorting the prostatic urethra may cause marked disturbances. In other cases, where symptoms are present, non-operative measures often suffice. The patient should avoid alcohol, overeating, over-exertion and catching cold. He should drink copiously of water in order to keep the urine well diluted and hence bland and unirritating.

If cystitis is present, a large part of the obstructive symptoms is due to inflammatory swelling superimposed on the hypertrophy. Antiseptics of the urotropin class will often reduce the infection and with it the accompanying inflammatory swelling to such an extent as to practically remove all discomfort. Daily catheterization with proper antiseptic precautions will often afford great relief when there is some retention. Irrigation of the bladder may be added.

By use of the above means many cases, even with rather pronounced symptoms, may be kept so comfortable that an operation is not necessary, but in many cases the patient's condition is not relieved and his life is made a burden by constant pain, frequent desire to urinate, and consequent loss of sleep. In these patients the condition is so pitiable that we are justified in taking almost any risk if by so doing there is a prospect of relieving them.

These patients are bad operative risks for several reasons. In the first place, they are past middle life, past the period of greatest bodily resistance. Secondly, their general condition is reduced by pain, frequent urination, lack of sleep and sepsis incidental to the condition. Thirdly, the urine is almost invariably septic, so that an aseptic wound is not to be obtained. Lastly, the kidneys are frequently compromised as the result of urinary obstruction and sepsis. Conse-

quently these patients withstand poorly the shock of operation, while the anesthetic affects the kidneys unfavorably, so that suppression of urine may follow.

The operations for the relief of the conditions caused by prostatic hypertrophy are the following:

1. Operations for drainage.
2. Bottini's operation.
3. Suprapubic prostatectomy
4. Perineal prostatectomy.
5. Combined suprapubic and perineal prostatectomy.
6. Castration and vasectomy.
7. Operation in two stages.

1. *Operations for Drainage.*—Before prostatectomy became the usual operation for prostatic hypertrophy, drainage by cystotomy, either by the suprapubic or perineal route, was recommended in cases which had resisted other means of treatment. At the present time this is rarely used as a final operation, although advocated in patients who are in serious condition as a preliminary measure preceding prostatectomy.

2. *Bottini's Operation.*—This consists of cauterization with an electric cautery which is introduced through the urethra. It requires an expensive and somewhat complicated apparatus. It is an operation in the dark, and does not provide for drainage, which I regard as most important in these cases. It can not be denied that in certain cases, especially where the chief cause of trouble is the projection into the prostatic urethra of an enlarged "middle" lobe, good results are obtained. Personally, the fact of having seen two postmortem examinations in patients that had been operated upon by this method, in which extensive sloughing had taken place and the patients succumbed to sepsis, prejudiced me against the procedure.

3. *Suprapubic Prostatectomy.*—This consists in the removal of a part or the whole of the prostate by means of a suprapubic cystotomy. The bladder having been opened from above, the mucous membrane of the bladder covering the enlarged prostate is incised, and while an assistant makes upward pressure with a finger in the rectum, the gland, or a portion of it, is enucleated with the finger or some blunt instrument. The bladder is then drained through the suprapubic wound. This drainage is sufficient if the facial spaces beneath the gland have not been opened, that is, if the gland has been enucleated without opening that portion of its capsule which separates it from the perineal structures.

Ransohoff[1] has recently devised a means for the use of perineal drainage in these cases, whereby the operation is not materially prolonged. His method consists in passing a large curved trocar and cannula "through the most dependent of the emptied prostatic pouch against a finger of the left hand placed a little over half an inch in front of the anus." The trocar is then withdrawn and a drainage tube passed through the cannula, which is then withdrawn. This appears to me to be a distinct improvement in the technic.

4. *Perineal Prostatectomy.*—In this operation the prostate is approached from below. Several incisions have been recommended, but those most frequently employed are the median incision just in front of the anus and the curved incision with the convexity toward the scrotum. After getting through the skin and fascia the greater part of the necessary dissection can be done bluntly with the finger. The rectum often pouches forward toward the urethra further than one would expect. This must be liberated, and in the further dissection one must work toward the prostate and away from the rectum in order to avoid wounding the latter. In this part of the operation the prostate must be held down against the finger which is separating the gland from the surrounding tissues. There are several means of doing this. Pressure with the hand over the pubes will be of some assistance. Ferguson has devised a prostatic depressor which is introduced through the urethra. If it is impossible in a given case to

1. Ransohoff; A New and Rapid Method of Perineal Drainage in Suprapubic Prostatectomy, Jour. Amer. Med. Assn., Vol. II, No. 11, p. 887, Sept. 12, 1908.

pass this instrument, the membranous urethra may be incised and the instrument passed into the bladder through this incision. Young has devised a prostatic tractor which is introduced through a similar incision into the membranous urethra. Before introduction it has the shape of a single-bladed retractor; after introduction it is made to spread so as to present two blades extending in opposite directions.

When the capsule of the gland has been sufficiently exposed an incision is made through it over the projecting lateral lobe on one side. This incision must be large enough to admit the tip of the finger, and sometimes must be more than a quarter of an inch deep. The finger, introduced through the opening thus made, can, as a rule, enucleate sufficient of the gland from the corresponding side of the prostate. A similar incision through the capsule over the other lateral lobe permits further enucleation on that side. Sometimes a third portion, corresponding to the so-called middle lobe, can be enucleated through one of the lateral incisions. This enucleation is aided by the use of one of the retractors mentioned above.

In many cases the enlargement constitutes a tumor within the gland similar to a uterine myoma. These are the easiest to enucleate. In other cases a portion of the gland itself is enucleated. In rare cases enucleation is impossible and part of the gland must be removed piecemeal with scissors or cutting forceps. It is seldom necessary to remove the entire gland. After sufficient tissue has been removed, a drainage tube is inserted into the bladder through the wound, and secured by a suture through the skin. The wound is partially closed by sutures and a gauze drain put in on each side of the tube.

5. *Combined Perineal and Suprapubic Prostatectomy.*—Some operators recommend the combined operation. It certainly gives one most excellent control while doing the enucleation, but with the aids we now have at our disposal I do not regard it as often called for.

6. *Castration and Vasectomy.*—These operations are supposed to cause shrinkage of the prostate gland, just as removal of the ovaries in the female will cause shrinkage of a myomatous uterus. These procedures, warmly advocated by Prof. J. William White, are now rarely resorted to.

7. *Operation in Two Stages.*—Chetwood[2] and others have advocated operating in two stages in cases which are in bad condition. The first operation consists in providing drainage, usually by the perineal route. The second operation consists of prostatectomy and is performed as soon as the drainage, by reducing the sepsis, has sufficiently improved the patient's condition. The interval between the two procedures is usually between one and two weeks.

Results.—When the patient survives the operation, improvement in every way may be expected, although the first few days are very uncomfortable, owing to the escaping urine. The wound soon closes down upon the drainage tube, and, by connecting this with a longer tube, the urine may be collected in a bottle. This tube may be clamped at times and the patient allowed to sit up and even to walk about. It is well to get them out of the recumbent posture early.

After from ten to fifteen days the drainage tube is removed, and sounds passed through the urethra. This must be repeated every two or three days. At first all of the urine will pass through the fistula, but after a few days some will pass through the urethra. From this time on more and more comes through the natural channel, and in favorable cases the fistula closes in three or four weeks. The patient can then void his urine without pain and can retain it for from two to eight hours. The septic condition is relieved and the general health improved. These favorable results are the rule.

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2. Annals of Surgery, 1906, Vol. xliv, p. 563.

Unfortunately, some cases do not terminate so favorably. Occasionally the fistula refuses to close. If the rectum has been wounded there may follow a persistent rectovesical fistula. Some patients never get control of the sphincter vesicæ, and incontinence results. Epididymitis, sometimes terminating in abscess, is an occasional complication.

Choice of Method.—At the present time the choice of method practically lies between suprapubic and perineal prostatectomy. Each procedure has its advocates. No doubt each is preferable in certain cases. For instance, if it can be determined by bimanual examination or by the cystoscope that the enlargement is confined to the middle lobe, the suprapubic route would be the more advantageous. I have preferred the perineal route because it gave the best drainage, but if the suprapubic operation is supplemented by perineal drainage, this advantage of the perineal route is removed, whereas the suprapubic operation can be carried out with less danger of injury to the rectum.

Schachner,[3] in a recent article, after reviewing the statistics, says: "The statistics are harmonious throughout, namely, that the perineal operation is almost twice as safe as the suprapubic."

I believe this is not a virtue of the operative procedure *per se*, but is owing to the better drainage afforded.

MACOUPIN COUNTY.

The quarterly meeting of the Macoupin County Medical Society was held in the Masonic Reading Room at Carlinville, Oct. 29, with President J. P. Denby presiding. The following members were present: Drs. Davis, Fisher, J. Pitt and J. Palmer Matthews, and L. H. Corr, of Carlinville; Drs. King, English, Gross and Hobson, of Gillespie; Drs Motley and Lockwood, of Virden; Dr. Trout, of Atwater; Dr. Pattison, Benld.

The minutes of the last meeting were read and approved. The treasurer's report, showing a balance of $1.60 in the treasury, with no outstanding bills, was also accepted. Communications from Dr. McCormack concerning a National Department of Public Health and from the American Medical Association concerning advertising doctors and medical companies were read. The meeting then adjourned for dinner at the Central Hotel.

At the afternoon session Dr. E. K. Lockwood read an excellent paper on "Fracture of the Pelvis with Rupture of the Bladder (with report of four cases)." The paper was received as a contribution to the society and thanks extended to Dr. Lockwood. The committee appointed to submit a county fee bill reported and the committee was continued till next meeting, when the sample fee bill will receive detailed consideration.

The society was fortunate in the presence of Dr. J. W. Pettit, president of the Illinois State Medical Society, who had just returned from the International Tuberculosis Congress held at Washington. He gave a glowing report of the work of the Congress and told of the unanimity which characterized the proceedings, except in the matter of the resolution concerning bovine infection. He discussed also the early diagnosis of tuberculosis and emphasized its importance because it is safe to say that 90 per cent. of incipient cases can be cured, while not more than 50 per cent. of advanced cases, nor more than 1 or 2 per cent. of far advanced cases can be cured. There have been absolute demonstrations of cures in all countries, which prove that, though change of climate may be desirable it is not essential. By advanced cases he must mean those whose sputum contain bacilli.

By the ordinary methods of physical examination, auscultation, percussion, etc., it is impossible to arrive at more than a well-grounded suspicion of tuberculosis in its incipiency. There have been developed, however, the tuberculin

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3. Schachner: Comparative Value of Various Measures for Relief of Prostatic Enlargement, Annals of Surgery, August, 1908, vol. xlviii, p. 258.

tests, the technique of which were explained. In the cutaneous method, which is the simplest of the tuberculin tests, there is a considerable percentage of error. The ophthalmic method, though with less range of error, is not without danger. The subcutaneous, which is the most nearly correct, is, however, more expensive and difficult.

It was a real pleasure to meet and talk with Dr. Pettit, and his visit undoubtedly gave an impetus to our county organization. A vote of thanks was extended to him.

FRACTURE OF THE PELVIS WITH RUPTURE OF THE BLADDER, (REPORT OF FOUR CASES).

E. K. Lockwood, M.D., Virden, Ill.

I have selected this subject of "Fracture of Pelvis and Rupture of Bladder" for the reason that this injury is very common among the coal miners; especially the drivers, and as a large part of our population is coal miners I think this injury is common, having seen four cases in the last four years in a town that has about fifteen hundred to two thousand miners. This injury occurs most generally by being caught between the coal cars and squeezed or squeezed and rolled.

PATHOLOGY.

One of two things will occur, depending on age; those under twenty usually have separation of the symphysis pubis with over-rising of bones, also separation sacro-iliac articulation and rupture of bladder, while those over twenty have a green-stick fracture of ascending ramus ischium or descending ramus with rupture of bladder. This rupture of bladder is in the great majority of cases extra peritoneal and the rent is in the region of the trigone.

SYMPTOMS AND SIGNS.

The symptoms of this injury are classical and I will give them in the order that they generally will be observed, and their importance will come in that order.

Shock is always present, and it varies in degree owing to the extent of injury. In case number one it was profound. While in case number four it was slight. Constant desire to urinate with inability to pass even a few drops is always present. On passing catheter you succeed in drawing off a few ounces of bloody urine or it may be nearly pure blood. Examination per rectum shows that there is a difference in contour on the two sides of the pelvis, the side of the fracture feeling fuller than the corresponding side. I think with these symptoms and signs one can feel positive of fracture of the pelvis with injury to bladder, but if he waits 12 to 24 hours there will be dulness in flanks due to extravasation of urine, which may extend as high as umbilicus, also ecchymosis of the scrotum and perineum.

Mortality due to such injuries will vary owing to extent of injury and treatment. Von Bergman gives 75 per cent. mortality in cases that were not operated on, while cases operated on had a mortality of 50 per cent. In our four cases, those that were operated on lived, while those cases we did not operate on died.

TREATMENT.

Is operative; suprapubic incision down to bladder. Be careful not to open peritoneal cavity, and if possible repair rent in bladder. If patient's condition will permit, open bladder, place in drainage, provided you can not get at rent (in case number three, patient's condition was so desperate that we placed drainage in region of bladder rents, packed off Retzin's space). Catheter is placed in for a few days. The question will come up, shall we wait until shock is over? I think not; shock continues as long as urine is extravasated into tissues, probably due to stretching of nerves, and we noticed within a half hour after operating patient began to recover from shock. Asepsis is very important.

CASE 1.—J. V., male, age about 28, caught between cars 7 a. m., seen at 8 a. m. Collapsed, pulse 150; bruise on back. Passed catheter, drew one pint of bloody urine, injected boric acid solution; all returned. Frequent desire to urinate. A pear-shaped tumor in hypogastric region the size of a child's head, abdominal muscles rigid. Pain below umbilicus of lancinating character, patient died at 8 p. m.; postmortem examination, rupture of bladder the size of the palm of the hand with fracture of the ascending ramus ischium, considerable urine in Retzius' space.

CASE 2.—Mr. J., driver, age 17, squeezed between cars, considerable shock, constant desire to urinate but could not; passed catheter and drew off bloody urine; in two or three days urine was clear; complained of pain in region of bladder; condition grew worse. Patient died on the fourth day.

Postmortem:—Separation of pubic articulation with over-riding; some extravasation of urine, as high as umbilicus; rupture of the bladder in region of trigone. Dr. Motley caught one side of ramus of pubis and I held the opposite side, and we could not reduce fracture or dislocation; then we tried to pry between articular end of pubic bone with no better results.

CASE 3.—E. K., driver, male, 17, injured about 2 p. m.; kicked by a mule, does not know what happened. Saw him at 5 p. m.; complained of pain over bladder and in back; constant desire to urinate, but not able to pass any urine; said that that was all that bothered him; shock extreme. Abdominal muscles tense and boardy, dulness over region of bladder shading into resonance above, depression over pubic bone on left side. Examination per rectum, a full feeling in left side as compared to right. Passed catheter and drew off two ounces of bloody urine.

Operated 23 hours later; condition at time was alarming, shock still present; pulse 130 and weak. Incision over region of bladder, about one quart of urine escaped; pubic articulation had separated and was riding under bone of right side; assistant caught pubic ramus on one side and operator caught opposite, but could not reduce dislocation; could not sew rent on account of location, so placed in drainage tube and packed Retzius' space, placed in retention catheter; patient recovered.

Present condition, July 28, left foot turns out and has a limp but no trouble with bladder in any way; condition is good.

CASE 4.—R., Italian, male, aged 34, squeezed between cars; shock and constant desire to urinate, but could not pass any. Examination per rectum could feel a distinct fulness on left side of pelvic bone in region of ramus ischium. We took patient to hospital, operated 7 p. m.; suprapubic cystotomy (patient at time was suffering from shock); placed in drainage, could feel fracture of ramus ischium. Present condition of the patient, left foot turns out, bladder wound healed.

I wish to express my thanks to Dr. Morgan and to Dr. Motley for permission to report cases number two and four.

MASSAC COUNTY.

Dr. J. W. Pettit arrived here on December 13 and remained two days. On Sunday afternoon he delivered a lecture on tuberculosis at the M. E. Church to a crowded house. He spoke to a very attentive audience of representative citizens and we can begin to see the benefit of his visit. If his trip over the state could be followed up by a regular lecture course and get the people thoroughly aroused, public sentiment would soon make things right.

On Monday Dr. Pettit met with our county medical society, and lectured before noon on medical organization, and in the afternoon on the early diagnosis of tuberculosis. We had a splendid meeting and the society tendered a vote of thanks to Dr. Pettit for his visit. On Sunday after the lecture at the church

the local physicians, with the doctor, paid a visit to "Old Fort Massac," one of the oldest historical points in Illinois.

Our county society is one of the oldest in the state, and although we are few in number and do not hold meetings as often as we should, yet the organization is maintained and we are proud of our old records, and are going to continue the fight till we win.

A. C. RAGSDALE, Secretary.

MONROE COUNTY.

The Monroe County Medical Society held a special meeting at the Court House, in Waterloo, Ill., December 8, with a good attendance of members. The society invited the public to hear an address by Dr. J. W. Pettit on "The Tuberculosis Problem," and an appreciative audience greeted the doctor. After the lecture Dr. Pettit addressed the society, his subjects being "Medical Organization and Ways and Means of Securing a Full Attendance at County Society Meetings." Monroe County is now thoroughly organized, there being but one physician in the county who is not a member of the local society.

The following notice of Dr. Pettit's address appeared in the local paper:

"Under the auspices of the Monroe County Medical Society, Dr. J. W. Pettit, of Ottawa, Ill., president of the Illinois State Medical Society, who is making a tour of the State during his incumbency visiting the County Medical Societies, delivered an interesting and instructive talk on tuberculosis for the benefit of the general public at the Court House Tuesday afternoon last.

"To illustrate the magnitude of the scourge, Dr. Pettit gave the following statistics and comparisons: there are 160,000 deaths from tuberculosis yearly in the United States, 9,000 in the State of Illinois alone; more than all other contagious diseases combined; more than twice as many perish in the United States in four years than were lost on both sides during the civil war, and more deaths occur in one year than have perished from yellow fever in 115 years.

"This terrible destruction of life, which is easily preventable and within reasonable limits, curable, is caused by a disease that is contagious and not hereditary. The chief source of the disease is in the sputum of persons afflicted which is disseminated by careless spitting, the contagion being the same as in other contagious diseases, such as smallpox, diphtheria, etc., though to a less degree.

"One of the greatest causes in contracting the disease is for one to live in a house, or occupy bed rooms, which have been used by consumptives and have not been properly disinfected.

"In the treatment of tuberculosis, climate does not cut the figure which it was formerly supposed to have, for it has been established beyond all question of doubt that cases can be as thoroughly and satisfactorily treated with as large a percentage of recoveries in Illinois as is obtained in Florida or Colorado.

"The treatment resolves itself into one of nutrition only, and the agents employed are fresh air, proper food and properly regulated rest and exercise.

"The success of treatment rests primarily on an early diagnosis, most patients waiting until the disease obtains a firm foothold before consulting a physician, thereby lessening the chances of a cure.

"Among preventive measures, he laid particular stress upon the necessity of stopping spitting in public places, thereby removing the prime causes.

"Dr. Pettit founded the Tent Colony at Ottawa, as a private sanitarium, and its success, which has been well merited, will no doubt prove an incentive to the next Legislature to make an appropriation for the establishment of a state institution for the care of consumptives. Such eleemosynary institutions have been established in Missouri, Minnesota, Pennsylvania and other states; Illinois has always prided herself on her charitable institutions, but in the care of consumptives and epileptics she has been sadly lacking.

"The audience was a very appreciative one and we hope that the County Society will favor the public again with a lecture on this subject, which is of so much importance to all of us."

Secretary L. Adelsberger, M.D., makes the following comment on Dr. Pettit's address: "Dr. Pettit's work will lead to good results, not only with the developing of interest by the public in the fight against tuberculosis, but in stimulating members of county societies to take a more active interest in the organization."

OGLE COUNTY.

The Ogle County Medical Society held its fourth quarterly meeting in the chapel of the Old Sand Stone, Mount Morris, on Oct. 21, 1908, at 1:30 p. m. Dr. Beverage, the president, called the meeting to order. The roll call found the following physicians present: Drs. Akins, Brubaker, Brigham, Bowerman, Brown, Haines, Johnson, Krebbs, Kretsinger, McCosh, Powell, Price and Roe. Visitors: Dr. Harsha, of Chicago; Dr. Walter B. Helm, of Rockford; Dr. Replogle, of Leaf River; Dr. E. S. Murphy, of Dixon; Dr. C. A. E. Tesage, of Dixon, and Dr. Colton, of Oregon. New members elected to full membership were: Drs. Royal O. Brown, of Forreston, and Geo. B. McCosh, of Mount Morris.

The subject, "Surgical Diseases of Gall Bladder and Ducts" was opened by Dr. Wm. M. Harsha, of Chicago. The doctor presented an excellent paper and the discussion was entered into by Drs. Helm, of Rockford, and Murphy, of Dixon. The next subject, "Ectopic Gestation," was presented by Dr. Walter N. Helm, of Rockford. This subject, although somewhat rare, was presented in an able manner by the doctor. He advised an early diagnosis, and by all means an early operation should be done to prevent hemorrhage and to save the life of the patient. This subject was very ably discussed by Dr. Murphy.

A vote of thanks was tendered to Drs. Harsha and Helm for their able papers presented to the society. Dr. Haines moved that at the next regular meeting the physicians of the place of meeting prepare a program. Motion carried. The meeting then adjourned to meet at Oregon the third Wednesday in January, 1909.

PEORIA COUNTY.

The Peoria City Medical Society met Oct. 20, 1908. A report of the International Congress of Tuberculosis at Washington was given. Dr. Jeannette Wallace gave a very interesting and complete account of the section on economics and social side, following with a description of the exhibits. Dr. J. H. Bacon explained Dr. Robert Koch's present position in regard to the bovine strain of tubercle bacilli, also a summary of the newer scientific work of the congress.

November 3, 1908.—No meeting.

November 17, 1908.—Dr. Geo. Parker read a paper on "Vaccine Therapy." He gave the history of the vaccines in recent years. Then a summary of the results obtained by different workers in some of the diseases treated, also his personal experience.

December 1, 1908.—The evening was given over to the demonstration of Roentgen ray plates by Drs. C. U. Collins, R. L. Green and S. M. Miller, and a history of the cases presented.

December 15, 1908.—Annual election of officers.

SANGAMON COUNTY.

The ninth annual meeting and banquet of the Sangamon County Medical Society was held Monday, November 9, at the St. Nicholas Hotel, Springfield, and was attended by almost a hundred physicians and was the most successful meeting ever held by the society. The early part of the evening was given over to the election of officers, the following being chosen to serve for the ensuing year: President, Dr. Walter Ryan; vice-president, C. L. Nelson; secretary-treasurer, G. T. Palmer; censors, O. F. Maxon, D. W. Deal and C. L. Patton, all of Springfield.

After the business session the members of the association and their guests were invited to a banquet, following which excellent talks were made by Dr. James B. Herrick, of Chicago, a professor of Rush Medical College, who took as his theme "Methods of Diagnosis;" Judge Charles P. Kane, of Springfield, whose topic was "The Cat in a Strange Garret," and the Rev. Frederick W. Burnham, pastor of the First Christian Church, who used as his subject "Religion and Medicine."

The talk made by Dr. Herrick was an unusually instructive one and was listened to with much interest by all present. The address made by Judge Kane was one of the features of the evening's programme. The subject, "Religion and Medicine," as handled by Dr. Burnham, was a delightful surpise to those present. In his remarks the speaker showed how closely related the pastor and the doctor were in their work.

Those present were as follows:

Springfield—Charles L. Patton, James A. Egan, L. C. Taylor, A. E. Prince, Walter Ryan, F. W. Burnham, Charles P. Kane, G. W. Kreider, George T. Palmer, C. S. Nelson, B. B. Griffith, H. H. Tuttle, A. C. James, W. A. Halbert, D. W. Deal, D. M. Ottis, T. H. D. Griffiths, H. C. Blankmeyer, G. A. Hulett, S. E. Munson, C. M. Bowcock, Helen Babb, O. F. Maxon, C. P. Colby, P. L. Taylor, Stanley Castle, C. W. Milligan, A. W. Barker, C. D. Wright, Roy F. Rogers, H. L. Metcalf, I. W. Metz, C. H. Walters, J. C. Walters, J. O. Salyers, O. B. Babcock, J. A. Prince, I. Bullard, J. L. Taylor, O. D. Taylor, Mrs. James C. Rigg, C. A. Lloyd, I. H. Taylor, H. T. Morrison, Jr., and R. D. Berry.

Decatur—F. M. Anderson, J. C. Fisher, Herbert C. Jones, Benjamin Bacharach, Tyler Meriweather, Oscar Yammel, M. W. Fitzpatrick, W. A. Dickson, M. P. Parrish, J. T. Miller, N. G. Myers and C. E. McClelland.

Grace Dewey, Josephine Milligan, and T. J. Pitner, of Jacksonville; J. J. Conner, of Peoria; W. A. Brittin, E. R. Motley, Edward K. Lockwood and E. G. Motley, of Virden; A. L. Brittin, of Athens; J. W. Robertson, of New Berlin; J. H. Hill, of Mechanicsburg; W. A. Milton, Jr., of Warrensburg; E. H. Brittin, of Auburn; H. B. Millhon, of Owaneco; T. W. Priest, of Williamsville; A. L. Stuttle, of Williamsville; W. E. G. Mays, of Dawson; J. R. Pierce, of Cornland; F. M. Wilbur, of Riverton; John Deal of Riverton; James R. Rigg, of Mt. Pulaski; James B. Herrick, of Chicago; J. W. D. Mays, of Illiopolis; John D. Colt, of Litchfield; J. Palmer Matthews, of Carlinville; W. W. Van Wormer, of Girard; L. G. Allen, of Litchefild; L. B. Wright, of Rochester; D. A. Morgan, of Nilwood; A. D. Kirby, of Chicago; Robert E. F. Lentje, of Buffalo, and G. B. Lutyens, of Buffalo.

During meeting the following editorial from the *Daily Record*, of Springfield, was read and the sentiment contained was endorsed by the society:

SPRINGFIELD, ILL., MONDAY, NOVEMBER 9, 1908.

DOCTORS AND QUACKS.

The Sangamon County Medical Society will hold its ninth annual banquet at the St. Nicholas to-night, the function promising to be a notable one.

Dr. James B. Herrick of Rush Medical College, Chicago, will discuss "Methods in Diagnosis" and will, undoubtedly, demonstrate that medical science is making marked progress.

The leading doctors of the county will turn out for the occasion.

* *

But from no desire to find fault with the excellent program arranged for this enjoyable occasion, The Record respectfully suggests that the Sangamon County Medical Society would be even better employed in discussing "Doctors and Quacks" than "Methods of Diagnosis."

Springfield, perhaps, more than any other city of its size on earth, is largely in the hands of as questionable a gang of charlatans as ever infested a community.

A syndicate of quacks, generally reported to control five or six "medical" offices in Springfield, is reaping a rich harvest by preying on the credulity of the inhabitants of Sangamon county.

The "No Cure, No Pay" fake is right only to the extent that it is a pretty safe wager that there will be no cure.

But the pay end of it is exacted all the time and many men and women have learned to their sorrow that it is "Pay!" "Pay!" "Pay!" until they are driven to serious financial embarrassment.

The utter heartlessness of these charlatans is a matter of common gossip, yet new "suckers" are captured every day, fooled by the glittering promises of a syndicate that claims to be able to cure almost everything from galloping consumption to a broken neck.

* *

The Sangamon County Medical Society is composed for the most part of as able, clean and whole-hearted doctors as can be found anywhere on earth.

These men will do themselves and the community a lasting good if they can plan a way to rid Springfield of a set of leeches who are bringing disrepute to one of the most reputable and noble of professions.

The Sangamon County Medical Society met December 15 at the Carnegie Library, Springfield. Dr. C. S. Nelson, vice-president, and later Dr. Walter Ryan, president, presiding, and Dr. H. H. Tuttle acting as secretary in the absence of Dr. G. T. Palmer, regular secretary. Dr. O. H. Deichman, who has been in the government service at Ancon and other points in the Panama Canal Zone, gave a very interesting talk on the sanitary conditions prevailing in the Isthmus, which was enjoyed by the 20 members in attendance. According to Dr. Deichman's description, the government has made ample provision for the cure of the sick and injured workmen engaged in building the canal, and his stay of ten months in the government's service was full of interesting experiences, especially with tropical diseases. Yellow fever has been almost entirely eradicated,

but there is a great deal of malarial fever and dysentery still among the ignorant workmen. The climate, on the whole, was found to be quite agreeable and the American government has profited by the errors of the French who blazed the way for what is believed to be now a successful completion of the ditch.

Two new members, Drs. Morrison and Schultz, were elected and there was one application for membership.

STEPHENSON COUNTY MEDICAL SOCIETY.

The autumn meeting of the Stephenson County Medical Society was held at the court house in Freeport on Thursday afternoon, October 8. The following members were present: Drs. Arnold, Burns, Clark, Hutchins, Kober, Mease, Moore, Rideout, Rosenteil, J. W. Saucerman, Stealy and Snyder. The program was a very interesting one, and the papers of Dr. Mease and Dr. Stealy called forth quite a discussion. Several clinical cases were presented: one a case of sarcoma of the orbit with no return apparent after two months had elapsed since an extirpation of the orbital contents had been effected. Satisfactory use of "pitchblend" had been made use of in this case.

CASE 2.—The patient, a man 58 years old, who several months previous to being operated on for frontal sinusitis, had suffered great pain over the right eye—was unable to sleep. He later noticed a swelling just under the orbital arch to the nasal side. This swelling increased in size and caused a deviation of the right eye toward the temporal side and consequent diplopia. It was the last-named symptom that caused him to seek surgical aid. The partition between the two sinuses was broken open and drainage established, both through the nose and through the external opening. Good results were obtained.

The paper of Dr. D. C. L. Mease was well received. Dr. J. H. Stealy read a very exhaustive paper that treated the subject of Fractures of the Astragalus with Dislocation of Its Fragments. The doctor had reviewed the literature most thoroughly and gave a paper of great merit.

CONSERVATISM IN SURGERY.

D. C. L. MEASE, M.D., FREEPORT, ILL.

The advances made in surgery within recent years are wonderful indeed, and go to show what man can accomplish by his skill and close attention to the principles involved in the intricate processes of life in organized bodies, to conserve or restore that degree of harmony between the various parts and structures formed in full accord with Nature's laws.

The successful removal or alteration of offending structures in whole or in part, and the successful implantation of organs or structures, altered or destroyed by accident or disease, in whole or in part, are remarkable advancements in surgical science that completely revolutionize the older methods of surgical procedures, adding innumerable lives and years to the human race, as well as alleviating or mitigating the sufferings and undesirable conditions that have afflicted mankind from all time, or have been brought on by changed manners of living and changed conditions.

Conservative surgery has indeed had no small part in this production of good results, and has to a large extent done away with the wholesale destruction of injured structures whose vitality is such that the parts might be saved and prove of the utmost usefulness to the individual. To save useful parts is as important, if not more so, than to remove offending ones. It is our duty as conscientious surgeons to use every means in our power to turn back the patient into the world as a useful member of society.

I remember well the time when, in amputations especially, it was the rule to remove any parts, however useful and necessary they were to the welfare of the individual, if there was any question as to their recovery; but with the

advances made in asepsis and antisepsis, this is all changed, and the patient is given the benefit of the doubt. What we always feared in attempting to save severely injured parts were shock, hemorrhage and infection, and these, thanks to our modern surgical methods, are now less feared than formerly. Where shock is pronounced it is the consensus of opinion that it should be combated before any serious operation should be done, as any additional nerve shock may at once terminate the case; but such necessary operations should be undertaken immediately upon the recovery from shock, for every moment of delay after that adds materially to the danger attending the injury. These are the cases where there is no question as to the evident uselessness of trying to save the injured member.

In minor surgery few of us but have been most wonderfully and agreeably surprised at the excellent results following the attempt to save portions of the fingers, where the injured parts simply hung by a few shreds of uninjured skin and in some cases entirely separated from other tissues. In one case, in my experience, a portion of the finger (three-quarters of the terminal phalanx) was drawn out of the patient's pocket with instructions to "sew that back on, Doctor." The portion presented was covered with dirt and tobacco, and the prospect of its living was any thing but propitious, but it was sewed and plastered on very carefully and, *"mirable dictu,"* in twenty-four hours it was adhering firmly enough and showing a trace of a pinkish tinge, which gradually assumed more nearly the health color, and the man to-day is a freight handler in the Freeport, I. C. R. R. service, with an entire finger, less one-fourth inch at the distal end, which refused to live and sloughed off. This sort of conservatism is the extreme, and although I have tried the same measure several times, only the once did I ever obtain desirable results.

Have had a number of cases that have given excellent results to conservative methods that have caused me to devote considerable time to its honest, conscientious and careful consideration where there is a reasonable chance to save rather than destroy. Primary amputations are no longer my aim, but rather, if possible, bridge patient over the first dangers and give Nature a chance to assert herself.

I recall two cases of crushing injuries to both bones of the leg: One in which fully three inches of the tibia and fibula were crushed to a jelly by the falling of a large clod of frozen ground upon the leg from a height of about three feet. At first it was thought that amputation was the only thing to be done, but I decided to give Nature a chance, and flexing the limb upon an incline plane with the body acting as counter-extension to a weight applied to foot, the limb was supported on each side by a sand bag. The fracture was a compound comminuted one, and through the opening in the skin for many days the fatty globules of bone marrow oozed out with the serum, while within the peritoneum, that retained its vitality, was the jelly-like mass of crushed bone, gradually giving way to new osteoblastic cells which changed it finally into solid bone, leaving little or no shortening to indicate the seriousness of the injury sustained.

Another case almost identical with this one gave practically the same results, where at first amputation seemed the only proper course—for had the cases turned out badly adverse criticism would have caused no end of trouble, and I assure you, brother practitioners, that it takes more courage to try to save making an amputation than to make one.

On Dec. 3, 1905, a brakeman received a severe injury, not only causing a fractured arm, but crushing the left foot and ankle so that the bones of the foot were broken into many pieces and the joint laid wide open with a hole extending through it from one side to another just below the malleoli, the skin laying back over the entire surface. The soft tissues, all exposed, bleeding, torn and filled with cinders, ground into them; hours were spent in removing cinders and useless lacerated tissues, and with but little hope that the leg could be

saved. The case was watched and attended to with extreme care. Dozens of small pieces of bone were removed and several times it was almost decided to amputate the foot, as the amputation was advised by a surgeon of wide experience, who considered the leg a useless member, which would never be of any service again, and yet, in spite of all this, the man is now working at his usual occupation of brakeman on the Illinois Central between Freeport and Chicago. Although laid up a year and a half with the injury, he recovered so fully that to see him walking the streets of our city, with only the suggestion of a limp, one not acquainted with the case would never believe the statement of the true condition of the limb after the injury.

Another case of a young man who as a brakeman was thrown from the top of a moving car by the sudden jerk of the train to a flat car below. In the fall struck his right ankle against the edge of the car on which he was standing, bruising and crushing soft tissues to such an extent that there subsequently sloughed out a mass three inches wide by four long over the outside of joint, exposing the external malleolus and parts under and about it. When he landed feet first on the flat car right ankle turned under the body weight and a typical Pott's fracture with four lines of separation occurred, while the ankle was dislocated outward and backward. The fractures and dislocation were reduced and held in place as nearly as possible, and although nothing could be promised of a favorable nature, as all the parts involved were crushed and soft tissues reduced to a pulp, yet good results ensued, and by skin grafting later on, the external malleolus was entirely covered and a useful leg results with but slight deformity.

I will report two more cases, showing the reward of patient and persistent effort in spite of adverse appearances when first seen, and in one case especially the desperate chances taken with the excellent results following.

On July 15, 1907, P. B., a switchman, working for the Illinois Central, stepped off the foot-board of an engine to make coupling and engine started up. In attempting to step back on the foot-board, blinded by the escaping steam, he missed it and was struck on the leg by the foot-board and thrown in such a way that the right foot was caught between the drawbars, severely crushing and fracturing the bones entering into ankle joint and one or two toes, stripping the skin from the whole of the inside of the foot, while the whole sole of the foot, including entire heel, was torn loose from tissues underneath and hanging by three inches of uninjured tissues simply attached along the outside of foot from outer malleolus on a line running toward base of little toe; the soft tissues were all torn to shreds, the deeper blood vessels and nerves alone remaining intact although uncovered and showing plainly in bottom of foot; the os calcis and most of the bones of the tarsus and metatarsus being almost entirely denuded of all coverings except their periosteum. Nearly three hours were spent in dressing this injury by the surgeons in attendance after it was decided to attempt to save limb, for the chances were most desperate. The soft tissues that remained partially intact were replaced as carefully as possible with no hope whatever of saving them, but of giving Nature a chance to show how much tissue could be retained. Hot moist gauze was kept constantly applied for many days, in fact two or three weeks, day and night, weakly impregnated with antiseptics. The temperature ran high with every symptom of absorption of more or less septic material and for over a week I was in readiness, at any minute, if the symptoms became too alarming, to amputate and combat in every way the pernicious effect already started in the general system; but at last after the closest attention to minutiæ and the removal of gangrenous tissue as fast as a line of demarcation occurred, the threatening symptoms became less marked; the parts, although finally cleared of all the infecting and useless tissues, left a foot denuded of the entire sole and of all of its subcutaneous paddings, and the integument on each side of heel from one malleolus to the other. Occasional necrosed fragments of bone presented themselves

through the new granulations that were thrown out, and were removed, and in the course of several months the foot began to assume its proper form to a great extent; soft tissues were replaced reasonably fast enough, the fractured bones united kindly, the interspaces between the metatarsal bones filled up, the bones themselves were hidden from view and the parts were covered with a new padding, not of fatty tissue but of heavy granulations rounding off the heel to a natural plumpness, the skin growing in from all sides. At last after everything was ready for skin covering, the growth of the integument came almost to a standstill, as the cells were so attenuated they could not longer furnish proper material; then skin grafting was done and some of the skin grafts took hold at once, but owing to the large amount of surface to be covered and the fact that the abundant secretions from the new granulations washed some of the grafts away, repeated graftings had to be made. Owing to the pain produced in taking off the pieces of skin for the grafts, the patient suggested frog skin; the idea was novel at least and I agreed to try it. Receiving a consignment of frogs from the Chicago market in fine condition I at once began to prepare parts for the grafting. I applied six or eight grafts with great care, raising edges of skin newly formed and tucking an edge of the frog skin under it. Within twenty-four hours the grafts had become much thinner, although still firmly held in place, having been covered with oiled silk; within forty-eight hours hardly a vestige of the grafts remained, but it was noticed that a new layer of granulations of a bluish color were thrown out all around the edges of the denuded surface; these were followed by others, and after a day or two a small island of new skin granulations appeared here and there where the grafts had been, all of the same bluish tinge. When the granulation no longer seemed to appear another grafting was made with the same results, viz., the starting up of the skin granulation process from the edges of raw surface remaining and possibly new islands of skin. Thus grafting was done four times and the entire surface was covered with skin of a bluish tinge which gradually assumed the same color and characteristics as ordinary skin.

Another patient who had sustained a somewhat similar injury except that is was not so severe and to the dorsum of the foot instead of the sole, was subjected to the same kind of grafting at the same time and the same characteristic process of repair was noted and excellent results obtained, and he is at present employed here by the Illinois Central Railroad as a brakeman.

These cases show that to be conservative, which in reality means the employment of the highest judgment one is capable of, in aiding Nature and giving to the patient the best results irrespective of time and amount of care required and trouble caused, is always well worth the effort—for conservatism may mean immediate action to gain best results or mean long and arduous study and labor to produce the most desirable results that can be obtained within the limits of safety.

VERMILION COUNTY.

The Vermilion County Medical Society was called to order in the City Hall at 8:30 p. m. This being the annual meeting, the secretary-treasurer's report was read and accepted. The election of officers resulted as follows: President, S. C. Glidden; vice-president, R. L. McCaughey; secretary-treasurer, Geo. Steely; delegate, E. B. Cooley; alternate delegate, Benj. Gleeson; censor, Rachel Cooper. Recess was taken to partake of a lunch provided by the committee. On resuming the session a motion was offered and carried that the secretary see that appropriate resolutions concerning the death of the wife of Dr. H. F. Becker be prepared and presented to the Doctor. After considerable discussion Dr. Miller offered a motion that the chair appoint a committee of five to confer with the druggists regarding the matter of illegal prescribing by the druggist. Carried.

Adjourned. E. E. CLARK, Secretary.

NEWS OF THE STATE.

PERSONAL.

Dr. Arthur F. Beifeld has gone abroad.

Dr. Edmund J. Doering, Chicago, has returned from Europe.

Dr. and Mrs. Milton K. Eisenstaedt, Chicago, have gone to Europe.

Dr. Elizabeth Bentele, of Chicago, is studying in Berlin, Germany.

Dr. John C. Gunn, Belleville, has returned after six months abroad.

Dr. and Mrs. Frank A. Phillips, Chicago, are spending the winter in Arizona.

Dr. E. R. Van Meter, of Springfield, is reported to be defendant in a suit brought by his wife for divorce.

Dr. Joseph Springer, Chicago, has been appointed coroner's physician, vice Dr. Otto E. Lewke, resigned.

It is reported that Dr. L. O. Cox, of Murphysboro, has filed a $3,000 bond to appear for trial on a statutory charge.

Dr. Charles F. Read, Geneva, has been appointed assistant physician in the Illinois Eastern Hospital for the Insane.

Dr. William B. Peck, Freeport, who has been abroad for a year, is expected to return and resume practice early in January.

Dr. Stephen V. Balderston has been appointed commissioner of health of Evanston, vice Dr. William R. Parkes, resigned.

Dr. August W. Meyer has been re-elected as city physician of Quincy for the year 1909 by the Adams County Board of Supervisors.

The condition of Dr. Sarah Hackett Stevenson, of Chicago, who has been ill for a long while in St. Elizabeth's Hospital, is reported to be critical.

Dr. Burton W. Hole, of Springfield, has retired from practice and will remove to Chicago from which place he will travel in the interest of a publishing house.

Dr. Daniel R. Brower, Chicago, has been appointed a member of the state committee having in charge the investigation of the Cook County Insane Hospital at Dunning.

Dr. Otto T. Freer, Chicago, has returned from abroad, where he demonstrated his septum operation at clinics in London, Edinburgh, Berlin, Vienna, and other cities.

Dr. and Mrs. John B. Hench, of Hinsdale, on Thanksgiving day, which was also their twenty-fifth wedding anniversary, were presented with a chest of silver by his patients as a demonstration of their appreciation.

What is supposed to have been a bomb was thrown into the automobile of Dr. Merritt O. Hoover, an official of the Chicago Health Department, December 7. Dr. Hoover said he had received several threatening letters prior to this occurrence.

Dr. R. G. R. Williams, formerly of Danville, has moved to Paris, Ill., and has established a laboratory for the use of the physicians in the surrounding territory. In addition to the ordinary microscopic and chemical, the modification of milk will be undertaken in this laboratory.

Dr. E. C. Dudley and family, Chicago, have returned from Europe. During his stay in Vienna, Dr. Dudley was elected an honorary member of the American Medical Association of Vienna, being the third individual to be thus distinguished, the preceding honorary members being Dr. Politzer, of Vienna, and Dr. William W. Keen, of Philadelphia.

NEWS ITEMS.

The construction work of the new million-dollar tuberculosis hospital of Chicago for Cook County will begin very soon. The building permit has already been procured.

The surgeons of the staff of the Columbus Hospital, Chicago, have made a substantial donation to the institution by contracting to equip an operating room at a cost of more than $5,000.

Dr. R. L. Watson, of Granville, Dr. E. F. Peterson, of Varna, and Dr. W. S. Morrison, of Minonk, were each, respectively, chosen coroner of the counties of Putnam, Marshall and Woodford at the late November election.

Dr. James B. Herrick delivered a memorial address relative to the late Prof. Frank Hugh Montgomery Thursday afternoon, Dec. 17, 1908, in the upper amphitheater of Rush Medical College, Wood and Harrison streets, Chicago.

H. Darwin McIlrath, president of a medicine company in Chicago, charged with practicing medicine without a license and prosecuted by the state board of health, is said to have been found guilty November 16 and fined $100.

Miss Isadore Duncan's interpretation of "Iphigenia in Aulis," given for the benefit of the Children's Memorial Hospital and the Theodore Thomas Orchestra invalid fund, Chicago, December 8, is said to have netted more than $10,000 for these charities.

The citizen's committee which recently investigated the Cook County Hospital for the Insane, Dunning, in its official report, recommended the establishment of a psychopathic hospital, where patients can be treated before being committed to the state hospitals.

On the ground that newspaper publicity is foreign to the principles of ethics of the medical profession, the Madison County Medical Society adopted resolutions at its last meeting deploring the practice and requesting the publishers of newspapers to omit the names of physicians and their deeds from their columns.

The new City Hospital in Chicago for the treatment of contagious diseases opened November 28, with four patients suffering from diphtheria. Dr. Margaret M. Jones has been appointed physician in charge. The capacity of the hospital is about 200. Only cases of diphtheria and measles will be received at the institution at present.

Dr. Archibald Church, the present editor of *The Chicago Medical Recorder,* will resign all connection with its editorial and business management with the December issue. The subsequent editorial direction of the journal will be either committed to an editorial board or otherwise provided for, and will be announced in the January issue.

Dr. James W. Pettit, president of the Illinois State Medical Society, under the auspices of the Monroe County Medical Society, delivered an instructive address to the laity of Waterloo, December 8, on "The Tuberculosis Problem," after which he addressed the society on "Medical Organization" and the "Ways and Means of Securing Full Attendance at County Society Meetings."

Drs. Bernard DeKoven and Alexander A. Whanond are said to have each been fined $10 and costs, November 24, for failing to report cases of epidemic diseases to the commissioner of health, Chicago. For a similar offense, Dr. Peter T. Burns is said to have been assessed costs of $7.75. Martin and Minnie Rudd, also of Chicago, were fined cost for permitting a child infected with contagious disease to break quarantine.

Plans announced by the president of the board of education of Chicago are to the effect that tubercular and subnormal children in the public schools of Chicago are to be segregated and provided with a special mental and physical training institute to be founded on a 240-acre tract of land in Riverside. Arrangements are also being made to provide a substitute for the present John Worthy School for Delinquent Children on the same tract of land.

The private pavilion of the Presbyterian Hospital, completed at a cost of $390,000, was formally dedicated November 29. The dedicatory address was made by the president, Albert M. Day. Dr. Frank Billings also made an address. Seventy-five patients can be accommodated in the new wing of 58 private rooms. A sun parlor is the main feature of the building, the roof, one-half of which is enclosed in glass so that patients may enjoy the sun in any kind of weather.

The milk commission of Chicago, of which Dr. A. Belcham Keyes is secretary, has issued a physician's order blank, on the back of which is a list of stock formulæ of milk for infants and a list of the milk stations where the milk may be obtained. The commission also issues leaflets on "Buttermilk Good for Infant Feeding" and "How to Take Care of the Baby." The latter leaflet is supplied in seven languages and copies for distribution will be sent by the commission on application.

In a statement prepared by William C. Graves, secretary of the State Board of Charities, the average per capita cost in the seventeen charitable institutions of the state for the quarter just ended was $43.19. The figures for the individual institutions were as follows: Hospitals for the Insane—Southern Hospital, Kankakee, $29.23; Central Hospital, Jacksonville, $33.03; Southern Hospital, Anna, $33.30; Northern Hospital, Elgin, $64.55; General Hospital, Watertown, $38.61; Criminal Asylum, Menard, $42.15; Institution for Feeble-minded, Lincoln, $37.11; School for Deaf, Jacksonville, $40.19; Girl's School, Geneva, $44.83; Boys' School, St. Charles, $54.96; School for Blind, Jackson-

ville, $68.42; Orphans' Home, Normal, $71.07; Soldiers' Home, Quincy, $32.74; Widows' Home, Wilmington, $67.14, and Industrial Home for Blind, $77.60.

As the result of a year's work on the part of prominent Jewish club women, the Chicago Winfield Tuberculosis Sanitarium will be opened about January 1. The project to war on the white plague was made possible by the gift of Charles A. Stonehill, who has been elected president of the organization. Officers chosen are: First vice-president, Mrs. Emma B. Mandl; second vice-president, Mrs. I. J. Brown; recording secretary, Mrs. B. M. Engelhard; corresponding secretary, Mrs. M. L. Aren; treasurer, Mrs. Jacob Frank; financial secretary, Mrs. Sidney Handl; assistant financial secretary, Mrs. Leon Schutz. Mr. Stonehill's gift consists of a seventeen-acre tract at Winfield, Ill., thirty miles from Chicago on the Northwestern railroad. The estate includes a modern building of thirty-six rooms. The structure has been renovated and fitted with almost four hundred square feet of veranda space which will serve as outdoor sleeping quarters for the patients. The outdoor treatment is to be the special cure adopted. The institution is to be managed by a board of directors.

MEDICAL SOCIETY NOTES.

At the meeting of the Jackson County Medical Society, Dec. 17, 1908, the following officers were elected for the ensuing year: Dr. C. O. Molz, president, Murphysboro; Dr. A. R. Carter, vice-president, Murphysboro; Dr. Ray B. Essick, secretary-treasurer, Murphysboro; Dr. R. S. Sabine, member of Board of Censors for three years, Murphysboro.

The Belleville Medical Society held its annual banquet and meeting at Belleville, December 14. The discussion of medical questions was a feature during the banquet. Big preparations were made and all of the physicians in the city attended. Dr. Edward H. Ochsner, of Chicago, addressed the physicians on "Vaccine Therapy in Joint Tuberculosis." Dr. Lawrence Ryan, also of Chicago, gave a talk on "Malignant Edema."

In response to a call from Dr. S. B. Cary, president, and Dr. J. F. Walsh, secretary, of the Alexander County Medical Association, there was a large gathering of members of the profession at the Commercial Club rooms, Cairo, Ill., December 10. The primary purpose of the gathering was to meet Dr. J. W. Pettit, of Ottawa, Ill., and hear him discuss the subject of membership in the state association; also to meet Dr. Mitchell, of Carbondale, who addressed the meeting.

The Cook County Hospital Alumni Association held its forty-seventh annual meeting, November 23, at the Illinois Athletic Club, Chicago, under the presidency of Dr. Samuel C. Plummer. The program included addresses by Dr. William E. Quine on "Nicholas Senn as a Man," by Dr. William L. Baum on "The New County Hospital," by Dr. Arthur B. Eustace on "Our First Regular Resident Staff," and by Dr. Theodore Tieken on "The County Hospital as a Field for Scientific Work."

An interesting and profitable session of the McLean County Medical Society was held Dec. 3, 1908, in the city hall at Bloomington, Ill., and there was a large representation of the profession present from that and neighboring towns. One of the interesting and instructive features was a paper which was read by Dr. Hart, of Bloomington, on the subject, "Tubercular Peritonitis." There was a general discussion of this subject and also of the general topic of tuberculosis and the matter of establishing a county sanitarium was given some attention.

At the meeting of the King County Medical Society, Washington, November 2, it was decided that all doctors having contract practice, such as lodge, labor union, department store, hospital association, etc., should be excluded from membership in the society, and the present members were given until Feb. 1, 1909, to sever their connection with such organizations, under penalty of expulsion. The society also concurred in the plans advocated by the state association, whereby the county society shall share equally with the state society and the state medical board the expense of the prosecution of illegal practitioners in those cases that terminate successfully. In the unsuccessful cases the county societies bear none of the expense.

An enthusiastic meeting of the Rock Island County Medical Society was held in the Hotel Harms, Rock Island, December 8, and was attended by a large part of the society's membership. A symposium on pneumonia occupied that part of the evening which was devoted to study, and papers were read by several of the members under the general head "Pneumonia." The "pathology and etiology" of the disease was taken up by Dr. A. E. Williams, the "synopsis and diagnosis" was taken up by Dr. F. H. First, while the "Treatment of Pneumonia" was discussed by Dr. G. L. Eyster. A lunch was enjoyed and a business session followed, during which several new members were taken in and several proposed for membership. The next meeting of the society will be held in February.

The Physicians' Club of Chicago, at its first meeting of the year, Nov. 27, 1908, discussed the subject of "Drug Therapy; Past, Present and Future." Dr. William E. Quine acted as chairman for the evening and the following program was given: 1. "The Causes of Drug Nihilism," Dr. Bernard Fantus. 2. "Some Therapeutic Misconceptions and Fallacies," Dr. Joseph L. Miller. 3. "The Present Status of Drug Therapy," Dr. William E. Quine. 4. "The Clinical Value of Experiment Therapy," Dr. A. S. Loevenhart, professor of pharmacology, University of Wisconsin. 5. "The Proper Teaching of Therapeutics in the Medical Schools," Dr. George F. Butler. The discussion of this subject was provoked by the interest for a better knowledge, on the part of physicians, teachers and students, of the action and limitations of drugs. We have written in these pages before of the evils which have existed from the growth of the nostrum business. The insufficient knowledge of the student as he leaves the medical school has made him a ready and willing victim of the detail man. In the discussion many incidents were cited of recent graduates who were woefully uneducated in the art

of prescription writing. Dr. George F. Butler made a statement in his paper that the proper teaching of materia medica and therapeutics in the medical schools would soon eliminate the proprietary and nostrum business. Drug nihilism is leading to the growth of various cults and mental healers. The department of psychotherapy has shown the medical profession this much neglected branch of study and with an increased knowledge of this means of treatment by the general practitioners will aid in the complete undoing of the Christian Scientist and similar organizations.

PUBLIC HEALTH.

Smallpox has been reported at the following towns: Peoria, Herrin, Fulton, Schuyler county and Logan county.

Diphtheria has been reported at Gladstone, Mattoon and the North Infirmary of the Illinois Eastern Hospital for the Insane at Kankakee.

Several cases of milk sickness have developed in the neighborhood of Morris, Ill., causing the death of a child, 8 years old, and an adult, a hired man, both residing in that city.

Scarlet fever is reported at the following towns: Crystal Lake, in McHenry county; Illinois State Institution for Deaf and Dumb at Jacksonville; Moline, New Holland, Aurora, and Collison.

It is reported that the following medical inspectors have resigned from the department of health in Chicago: Fred Zapffe, J. C. Friedman, Harry Kahn, Kellogg Speed, William Hassert, H. M. Richter, Frank X. Walls, J. L. Fleming, F. S. Churchill, Walter H. Buhlig, Robert Sonnenschein, Frank G. Harris, Allen B. Kanavel, Clifford G. Grulee, Maurice L. Blatt, and John A. Riley.

The Illinois State Board of Health has just placed contracts for the diphtheria antitoxin for free distribution in the state, the contract this year being awarded to Dr. H. M. Alexander & Co., of Marietta, Ohio. The antitoxin made by this company was selected by the board at its meeting in Chicago, October 20, when the bids of a number of manufacturers were considered. The legislature has made a biennial appropriation of $30,000 for the purchase and distribution of diphtheria antitoxin.

The Bulletin of the Department of Health of Chicago gives the following report on the health conditions for November:

"The month of November passes into the record with a total of 2,425 deaths, 144 more than the preceding month and 216 in excess of the corresponding month of last year. The death rate was 7 per cent. in excess of the ten-year average of this month. As compared with November, 1907, the following diseases show an increased mortality: Diarrheal diseases, 98 more; consumption, 57 more; Bright's disease, 41 more; diphtheria, 38 more; heart diseases, 22 more; nervous diseases, 13 more; measles, 9 more; bronchitis, 8 more; cancer, 7 more; scarlet fever, 2 more, and suicide, 4 more. There were, similarly compared, 56

fewer deaths from pneumonia, 30 fewer from convulsions, 10 fewer from typhoid fever, 7 fewer from influenza, and 3 fewer accidental deaths.

Statement of Mortality: Month of November, 1908, compared with the preceding month and with the corresponding month of 1907. Death rates computed on United States Census Bureau's figures of midyear populations, 2,166,055 for 1908, 2,107,620 for 1907:

	Nov., 1908.	Oct., 1908.	Nov., 1907.
Total deaths, all causes	2,425	2,281	2,219
Annual death rate per 1,000	14.00	12.41	12.81
Sexes—			
Males	1,357	1,316	1,260
Females	1,068	965	959
Ages—			
Under 1 year	437	510	384
Between 1 and 5 years	203	200	168
Between 5 and 20 years	179	140	164
Between 20 and 60 years	1,046	946	977
Over 60 years	560	485	526
Important causes of death—			
Apoplexy	46	59	43
Bright's disease	200	182	159
Bronchitis	63	47	51
Consumption	303	238	246
Cancer	113	124	106
Convulsions	0	1	30
Diphtheria	81	67	48
Heart diseases	225	188	203
Influenza	3	3	10
Intestinal diseases, acute	211	342	113
Measles	15	2	6
Nervous diseases	66	66	53
Pneumonia	275	205	331
Scarlet fever	48	36	46
Smallpox	0	0	0
Suicide	28	36	24
Typhoid fever	34	31	44
Violence (other than suicide)	137	148	140
Whooping cough	4	7	6
All other causes	573	499	560

CHANGE IN LOCATION.

Dr. Daniel D. Raber has located at Plano, Ill.

Dr. J. M. Schearl, of Sherman, has removed to Urbana, Ill.

Dr. E. T. Alford has removed from Chicago to Waterloo, Iowa.

Dr. S. W. Latham has removed from Harrisburg to Eldorado, Ill.

Dr. Susanna Orton has removed from Chicago to Darlington, Wis.

Dr. G. M. Tyrrell has removed from Apple River to Elizabeth, Ill.

Dr. E. M. Brooks has removed from Charleston to Beecher City, Ill.

Dr. A. L. Golightly, of Beecher City, has removed to Carbondale, Ill.

Herbert D. Wentz, M.D., has removed from Chicago to Verona, N. D.

Dr. E. S. Everett has removed from Amboy, Ill., to North Attleboro, Mass.

Dr. R. Herrick has removed from La Salle, Ill., to Oklahoma City, Okla.

Dr. R. K. Keitch, of Decatur, Ill., has removed to Oxford Junction, Iowa.

Dr. Charles E. Klontz has removed from Rockford to Cherry Valley, Ill.

Dr. T. A. Wallace has removed from Naples, Morgan county, to Decatur, Ill.

Dr. J. B. Hazell, of Hoopeston, Vermilion county, has removed to Flora, Clay county, Ill.

Dr. F. R. Morgan, who located in Kokomo, Ind., a few months ago, has removed to Onarga, Ill.

Dr. F. H. Langhorst announces that he has removed from El Paso to No. 1566 West Fourteenth Place, Chicago.

Dr. W. G. Murray, of Dayton, Ohio, has moved to Springfield, where he will practice medicine, with his office at 1020 North Ninth Street.

MARRIAGES.

Ira M. Miller, M.D., to Miss Alice A. Strake, both of Chicago, October 21.

Roy White McClintock, M.D., to Miss Mattie Anna Weber, both of Chicago, November 14.

Otto O. Gaebe, M.D., Addieville, Ill., to Miss Alma B. Wilde, of New Athens, Ill., December 2.

Samuel D. Donovan, M.D., Dewey, Ill., to Miss Pearl Hoffman, of Lovington, Ill., December 5.

J. Guy Allan, M.D., to Miss Blanche Claypoole, both of Edgewood, Ill., at St. Louis, October 28.

George Silas Duntley, M.D., to Miss Nola Blanche Seibert, both of Bushnell, Ill., December 2.

Walter Foreman Wickes, M.D., to Mrs. Katherine Young Robert, both of Chicago, December 16.

John J. McIntosh, M.D., Allendale, Ill., to Miss Hester Isabel Holsen, at Robinson, Ill., October 3.

Thomas S. Egan, M.D., Napletown, Ill., to Miss Winifred M. Leonard, of Newark, N. J., November 25.

John Glenn Young, M.D., Pontiac, Ill., to Miss Floy Martha Reynolds, of Genoa Junction, Wis., October 28.

DEATHS.

John M. Davis, M.D. (years of practice, Ill., 1896), died at his home in Hamilton, Ill., December 6, aged 75.

Henry J. Patten, M.D. Eclectic Medical Institute, Cincinnati, 1883; died at the home of his daughter in Chicago, December 15, aged 69.

Edward Anthony Mock, M.D. Bellevue Hospital Medical College, New York City, 1896; died at his home in Cambridge, Ill., November 21, from heart disease, aged 37.

Andrew J. Wallace, M.D. Starling Medical College, Columbus, Ohio, 1869; of Decatur, Ill.; died in St. Mary's Hospital, East St. Louis, October 6, from nephritis, aged 67.

William A. Tope, M.D. Rush Medical College, Chicago, 1887; of Downers Grove, Ill.; died, December 11, in Albuquerque, N. M., where he had gone in the hope of bettering his health, aged 49.

EDITH A. ROOT, M.D. Northwestern University Woman's Medical School, Chicago, 1875; a pioneer practitioner of Denver, Colo., and for some time president of the Denver Clinical Club; died at her summer home in De Kalb, Ill., from pneumonia, November 26, aged 67.

CHARLES ROSS PARKE, M.D. University of Pennsylvania, Philadelphia, 1847; for many years a practitioner of Bloomington, Ill.; one of the founders of the Illinois Medical Society; died at the home of his daughter in Louisville, November 6, from cerebral hemorrhage, aged 85.

ERNEST A. MATTHAEI, M.D. College of Physicians and Surgeons, Chicago, 1895; of Chicago; a member of the Illinois State Medical Society; associate in obstetrics at the Evangelical Deaconess Hospital and assistant in surgery in the Chicago Policlinic Hospital, died December 1908, in Sierra Madre, Cal., aged 40.

SAMUEL D. CULBERTSON, M.D. Jefferson Medical College, 1866; a veteran of the Civil War, having been wounded at the battle of Fredericksburg. He came to Illinois in 1866 and had practiced in Piper City, Ford county, ever since, and was the oldest practitioner in the county for some time; for many years had been prominent in the various medical organizations and in the work of the Grand Army of the Republic. He contracted pneumonia while in the active pursuit of his practice, and died at his residence in Piper City, November 12, having just entered upon his seventieth year.

THOMAS M. WILSON, M.D. Rush Medical College, 1908; A.B., Sc. of the University of Toronto; about to receive the degree of Ph.D. from the University of Chicago; an interne in the Presbyterian Hospital and instructor in pathology in the Chicago Veterinary College; who had devoted all his leisure for a year past to experiments in the laboratories of the McCormick Memorial Institute in an attempt to produce a serum to counteract the effect of the bacillus of glanders; died, November 19, in the Presbyterian Hospital, from glanders, after an illness of three weeks, aged 38, a martyr in the cause of scientific research.

Book Notices.

THE PRACTITIONER'S VISITING LIST FOR 1909. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years. Price by mail, postpaid, to any address, $1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, publishers, Philadelphia and New York.

NERVOUS AND MENTAL DISEASES. By Archibald Church, M.D., Chicago, and Frederick Peterson, M.D., New York. With 341 illustrations; 6th Edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company, 1908. Price, cloth, $5.00 net.

This standard work, which in about nine years has gone through six editions, besides a number of reprints, and has become a standard text-book in most of

the medical colleges of all schools, has made its appearance again, with a thorough revision which brings it up to date in every way, showing that it is destined to retain the place it has held so long. We bespeak for this new edition the cordial reception which has been meted to all of its predecessors.

PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS. By John C. DaCosta, Jr., M.D., Associate in Clinical Medicine, Jefferson Medical College, Philadelphia. With 212 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Price, cloth, $3.50 net.

For many years the work known as "DaCosta's Physical Diagnosis" has been before the public, and this work by the younger DaCosta perpetuates in a worthy manner the best predictions of the older work. The photograph and radiograph have done much in this work to help the printed pages in conveying the proper impression to the mind of the student. This work will easily take rank with the best before the profession and can be heartily recommended to our readers.

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Fully illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Price, cloth, $3.00 net.

The medical student or practitioner who would keep abreast of the times can not afford to be without this valuable work by Professor Jordan. In a volume of 557 pages, amply illustrated, he brings the subject of Bacteriology completely up to date and presents the subject in a satisfactory and entertaining way. Not the least valuable of the subjects considered are found in the chapters dealing with the bacteria in the arts and industries and in the air, soil and water. We trust that this excellent work by Professor Jordan will meet a cordial reception in Illinois.

ARTERIOSCLEROSIS: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment. By Louis M. Warfield, A.M., M.D., Instructor in Medicine, Washington University, Medical Department. Eight original illustrations. C. V. Mosby Medical Book Co., St. Louis, Mo., 1908. Price, cloth, $2.00 net.

This work of 165 pages is in fact the monograph upon a subject which is demanding the studious attention of the profession. The author says in his preface: "The wear and tear on the human organism in our modern way of living is excessive. Hard work, worry and high living all predispose to degenerative changes in the arteries and so bring on premature old age. We have tried to emphasize this by laying stress on the prevention of arteriosclerosis rather than on the treatment of the fully developed disease." The book is well worth reading and can be advised to our readers.

A HAND-BOOK OF SUGGESTIVE THERAPEUTICS, APPLIED HYPNOTISM, PSYCHIC SCIENCE. By Henry S. Munro, M.D., Americus, Ga. Second Edition. C. V. Mosby Medical Book Publishing Company, St. Louis, Mo., 1908. Price, cloth, $3.00 net.

This work by Dr. Munro, who gives his place of residence in the crevices in two of the smaller cities of Georgia, strangely enough is registered by Polk in still another city, will appeal to many practitioners of Illinois and the West, because Dr. Munro has traveled over a great part of this territory, giving personal instructions to classes of practitioners on the subject of Hypnotism and Suggestive Therapeutics. While Dr. Munro probably carries his ideas of this subject to an extreme, yet the book is well worth reading in view of the tendency to mental therapeutics now prevalent in all circles.